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सामायिकी

राग समय सिद्धांत का नव-आधुनिक उपयोजन

डॉ. गिरीश प्रेमलाल चंद्रिकापुरे

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सारांश :

भारतीय शास्त्रीय संगीत में राग समय का अपना महत्त्व है। संगीत शिक्षा में आज भी इसका अंतर्भाव किया जाता है। राग समय सिद्धान्त का मूल रूप समझाने के बाद नवनिर्मित रागों में इसको किस प्रकार प्रयुक्त किया गया यह इस शोधपत्र में बताया गया है। साथ ही एक पूर्णरूपेण नयी मिसाल देकर नवकल्पित रागों का समय निर्धारण इस सिद्धान्त के आधार पर किस प्रकार किया जा सकता है, इसका अनुसंधान करने का प्रयास इस शोधपत्र में किया गया है।

बीज शब्द :

राग, समय, संधीप्रकाश, प्रहर

भारतीय संगीत की अभिन्न विशेषताओं में से एक है राग संगीत। उत्तर हिंदुस्थानी संगीत की विशेषता अर्थात् रागों का समय सिद्धान्त। दक्षिण भारतीय कर्नाटकी संगीत में राग समय की संकल्पना नही पायी जाती। पारंपरिक रीति से इस सिद्धान्त का पालन घरानेदार गायक-वादक करते आये हैं। इस सिद्धान्त पर आधुनिक काल में अनेक साधक-बाधक चर्चाएँ भी हो चुकी हैं, जिसके फलस्वरूप जहाँ कुछ संगीतकार राग समय सिद्धान्त के पक्ष में हैं, तो अन्य कुछ संगीतकार राग समय सिद्धान्त के विपरीत मत भी रखते हैं।

संगीत के छात्रों को निरी शुरुआत से ही राग समय का सिद्धान्त पढ़ाया जाता है। 'रागों का स्वर तथा काल के आधार पर विभाजन' ऐसा एक विषय स्नातक स्तर के प्रथम वर्ष के विद्यार्थियों को पढ़ाया जाता था तथा वर्तमान में प्रचलित पाठयक्रम में भी 'राग समय सिद्धान्त' विशेष तौर पर अंतर्भूत किया गया है। राग गायन का समय किन मुद्दों के आधार पर निश्चित किया जाता है यह छात्र के अंतर्गत सीख सकते हैं।

रागों के समय निर्धारण के लिये दो प्रमुख नियम बताये जाते हैं, यथा :

पूर्व राग-उत्तर राग तथा

संधिप्रकाश राग।

राग का वादी स्वर सप्तक के पूर्वांग में है या उत्तरांग में- इसी बात से राग पूर्वांगवादी है या उत्तरांगवादी, इसका निर्धारण किया जाता है। राग का वादी स्वर 'सा रे ग म' इनमें से कोई हो तो राग पूर्वांगवादी होगा। यदि राग का वादी स्वर 'प ध नि सां' इनमें से कोई स्वर है तो वह राग उत्तरांगवादी कहलाएगा। सप्तक के दो भागों की ही तरह

24 घण्टों के भी दो भाग किये गये। दोपहर के 12 बजे से रात के 12 बजे तक के 12 घण्टों को पूर्वांग कहा गया और मध्यरात्रि के 12 बजे से दोपहर के 12 बजे तक के कालावधि को उत्तरांग कहा गया।

अतः जिन रागों का वादी स्वर पूर्वांग में हैं, वह राग पूर्वांगवादी कहलाएगा व उसका गायन भी पूर्वांग काल में ही होगा। तद्वत् जिन रागों का वादी स्वर सप्तक के उत्तरांग में है वे राग उत्तरांगवादी कहलाएँगे व उनका गायन समय भी दिन का उत्तरांग काल ही होगा। उदाहरण के तौर पर हम राग बिहाग व देशकार लेंगे। बिहाग राग का वादी स्वर गंधार है, जो सप्तक के पूर्वांग में आता है। अतः बिहाग राग पूर्वांगवादी कहलाएगा व उसका गायन समय जो कि रात्रि का दूसरा प्रहर है (रात्रि 10 से 1 बजे तक) वह पूर्वांग के अंतर्गत आता है। उसी प्रकार राग देशकार का वादी स्वर धैवत है, जो सप्तक के उत्तरांग का स्वर है। इस कारणवश देशकार राग को हम उत्तरांगवादी कहते हैं तथा इसका चलन भी मध्य व तार सप्तकों में होता है, साथ ही साथ देशकार राग का गायन समय दिन का प्रथम प्रहर है (सुबह 7 से 10 बजे तक), जो उत्तरांग काल में आता है।

'संधिप्रकाश राग' इस नियम के अंतर्गत रागों का तीन वर्गों में (थाटों मे नहीं) विभाजन किया गया है, यथाः

1. रे-ध स्वर कोमल लेनेवाले रागः इस वर्ग के रागों को ही वास्तव में 'संधिप्रकाश राग' कहा जाता है।
2. रे-ध स्वर शुद्ध लेनेवाले राग
3. ग - नि स्वर कोमल लेनेवाले राग

यहाँ खास बात यह है कि, रे-ध कोमल वर्ग के रागों में कोमल ऋषभ के साथ गंधार शुद्ध रहना आवश्यक है। यही नियम रे-ध शुद्ध वर्ग के रागों को भी प्रयुक्त होता है। क्योंकि गंधार-निषाद कोमल लेने वाला तीसरा वर्ग है ही। उसमें कोई ऐसा खास नियम नही पाया जाता। इन तीन वर्गों में दस थाट निम्न प्रकार से वर्गीकृत होते हैं:

रे-ध कोमल वर्ग : भैरव, पूर्वी, मारवा

रे-ध शुद्ध वर्ग : कल्याण, बिलावल, खमाज

ग-नि कोमल वर्ग : काफी, आसावरी, भैरवी, तोडी

इन तीनो वर्गों के राग गाने का समय प्रहरों के अनुसार निश्चित किये गये हैं। रे-ध स्वर कोमल लेने वाले राग संधिप्रकाश राग कहलाते हैं, अतः उनको गाने का समय भी संधिप्रकाश होता है। सुबह या संध्या के समय सूर्य के आसमान में न होने पर भी आसमान में जो आभा दिखाई देती है, उसको ही संधिप्रकाश कहा जाता है। वास्तव में संधिप्रकाश 20 से 25 मिनट की अवधि तक ही चलता है। समय विभाजन की सहूलियत के लिए इस अवधि को तीन घंटे तक मान लिया गया है। ऋतूभिन्नता के कारण सूर्योदय एवं सूर्यास्त का समय बदलता रहता है। शीतकाल में जहाँ सात से सवासात बजे तक सूर्य उदित होता है; वहीं धूपकाले में यही घटना छः बजे से भी पहले घटित हो जाती है। इसलिये भी संधिप्रकाश का यह समय मोटे तौर पर एक पहर का मान सकते हैं। घण्टे के हिसाब से यह समय प्रातः काल तथा सायंकाल के संधिप्रकाश समय को ध्यान में रखते हुए कायम किया गया है- अर्थात 4 से 7 बजे तक। दिन तथा रात के बीच का समय होनेपर भी इसे 'अंतीम प्रहर' माना गया। मेरे विचार से यह ठीक ही है, क्योंकि सूर्योदय के साथ रात्रि का तथा सूर्यास्त के साथ दिन का अंत होता है। इसी कारणवश राग समय के मामले में प्रहरों की गणना 6 बजे के बजाय 7 बजे से प्रारंभ करने की रीति चल पड़ी होगी।

संगीतमहर्षी पं. विष्णू नारायण भातखंडेजी द्वारा थाटों का जो तीन वर्गों में विभाजन किया गया, वह भाव की दृष्टि से भी महत्त्वपूर्ण है। संधिप्रकाश रागों में कोमल ऋषभ के साथ शुद्ध गंधार तथा कोमल धैवत के साथ शुद्ध निषाद लेने से एक विशिष्ट

प्रभाव उत्पन्न होता है। शुद्ध ऋषभ-शुद्ध गंधार से प्रसन्न वातावरण का निर्माण होता है। शुद्ध ऋषभ व कोमल गंधार, आंदोलित कोमल गंधार, कोमल गंधार के साथ मध्यम- यह सभी ऐसी स्वर संगतियाँ हैं जो पहले की दो अवस्थाओं से एकदम अलग भाव स्थिती का निर्माण करती हैं। भले ही हम इन्हें शृंगार, करुण, रौद्र जैसे रस नाम से संबोधित न कर सकें, फिर भी इनमें का फर्क सुनते ही समझ में आ जाता है।

संधिप्रकाश बेला के बाद का समय अर्थात दिन अथवा रात्रि का प्रथम प्रहर। रे-ध शुद्ध वर्ग के राग अर्थात बिलावल, कल्याण तथा खमाज थाट के राग इस समय पर गाये जाते हैं। बिलावल थाट के अंतर्गत आने वाले बिलावल के प्रकार प्रायः उत्तरांगप्रधान होने के कारण दिन के प्रथम प्रहर में गाये जाते है, तो कल्याण थाट के राग रात्रि के प्रथम प्रहर के लिये नियोजित किये गये हैं। खमाज थाट यह रे-ध शुद्ध व ग-नि कोमल वर्ग के बीच में आने वाला थाट होने की वजह से इस थाट के राग रात्रि के दूसरे प्रहर में गाये जाते हैं। देस, झिंझोटी, कलावती आदि खमाज थाटोत्पन्न रागों की शृंगारिक प्रकृति भी सम्भवतः इस समय की ओर इंगित करती है।

अब बचा एक ही वर्ग- गनि कोमल और प्रहर दो बच गये- दूसरा और तीसरा। ज्ञातव्य है कि ग-नि कोमल वर्ग के राग इन दोनों प्रहरों में गाये जाते है। दिन के दूसरे प्रहर में सारंग तथा तोड़ी के प्रकार तथा तीसरे प्रहर में धनाश्री अंग के राग अधिक दिखते हैं। रात्रि के दूसरे प्रहर में खमाज एवं काफी थाट के राग, तो रात्रि तृतीय प्रहर में कानडा तथा कौंस प्रकार अधिक सुनाई पड़ते है।

संक्षेप में, आठों प्रहर के राग निम्न प्रकार से दिखाए जा सकते हैं :

समय प्रहर	**प्रहर का नाम**	**गाये जाने वाले राग**
दिन का प्रथम प्रहर	पूर्वान्ह	अल्हैयाबिलावल तथा अन्य बिलावल प्रकार, देशकार आदि.
दिन का द्वितिय प्रहर	मध्यान्ह	तोड़ी प्रकार, सारंग प्रकार, दिनगेय कानडा प्रकार.
दिन का तृतिय प्रहर	अपरान्ह	भीमपलासी, पटदीप, हंसकिंकणी, मुलतानी आदि.
दिन का चतुर्थ/अंतीम प्रहर	सायंकाल	गौरी प्रकार, पूरियाधनाश्री, मारवा आदि.
रात्रि का प्रथम प्रहर	प्रदोष	यमन, हमीर, केदार, बिहाग आदि.
रात्रि का द्वितीय प्रहर	निशीथ	खमाज, देस, झिंझोटी, जयजयवंती आदि.
रात्रि का तृतीय प्रहर	त्रियामा	कानडा प्रकार, कंस प्रकार
रात्रि का चतुर्थ/अंतीम प्रहर	उषा	भैरव प्रकार, परज, ललित, भटियार आदि.

रागसमय निर्धारण हेतु और भी दो नियम बताए गए हैं। राग में मध्यम स्वर की शुद्धता/तीव्रता भी समय निर्धारण के लिए महत्वपूर्ण होती है। संधिप्रकाश तथा उसके बाद आने वाले प्रथम प्रहर में गाए जाने वाले रागों के परिप्रेक्ष्य में यह नियम विशेष महत्व रखता है। नियम यह है, कि यदि राग में मध्यम शुद्ध हो तो वह उषा तथा पूर्वान्ह के समय की ओर निर्देश करता है और यदि राग में मध्यम तीव्र हो तो वह सायंकाल तथा प्रदोष की ओर इंगित करता है। उदा. भैरव तथा बिलावल थाट के राग सामान्यतया पहटिया

एव सुबह मे गाये जाते हैं, वहीं पूर्वी व कल्याण थाट के राग बहुधा सायंकाल तथा रात्री के प्रथम प्रहर में क्रमशः गाए जाते है।

दूसरा नियम, सीमावर्ती रागों के सम्बन्ध में है। कुछ राग ऐसे होते हैं जो उपरोल्लेखित वर्गों की सीमारेखा पर विराजित होते हैं। उदा. रे-ध कोमल एवं रे-ध शुद्ध वर्गों के बीच में मारवा थाट के राग आते हैं। रे-ध शुद्ध व गनि कोमल वर्गों के बीच में जयजयवंती राग आता है। ऐसे राग प्रहरों की सीमारेखा पर गाये जाने चाहिए। मारवा यह संध्याकाल में, देर से गाया जाता है, जब रात्रि का प्रारम्भ हो रहा होता है। जयजयवंती का समय मध्यरात्रि 12 से 1 बजे के बीच आता है।

पारंपारिक रागों के लिए यह समय विभाजन एकदम सटीक लगता है। या फिर ऐसा कहा जाए कि, अधिकतर पारंपारिक रागों को समायोजित कर लिया जाए ऐसा ही इस समय सिद्धान्त का स्वरूप है। नए रागों के संबंध में यह सिद्धान्त किस प्रकार उपयोजित किया जाए इसकी चर्चा हम इसके आगे करेंगे।

नए रागों में से जो राग पारम्पारिक दशविध थाट या रागांग पद्धति के अंतर्गत आते है उनके समय निर्धारण में अधिक परिश्रम की आवश्यकता न होगी। तीन वर्गों में से किसी न किसी वर्ग में वे आएंगे ही, साथ उनका वादी स्वर सुनिश्चित होने से पूर्वांग या उत्तरांग का मसला भी स्वयं ही हल हो जाएगा। बिल्कुल ही नये रागों का निर्माण असम्भव तो नही किंतु दुर्लभ अवश्य है। पं॰ कुमार गंधर्व इन्होंने लोकधुनों के आधार से 11 धुन उगम रागों का सृजन किया। उनमें कुछ ऐसे राग हैं जो प्रचलित रागों से कुछ नाता नही रखते। मिसाल के तौर पर राग अहिमोहिनी, संजारी तथा मधसुरजा। यहाँ ज्ञातव्य यह है कि कुमारजी ने जो राग निर्मिती की, वह समय सिद्धांत के अनुरूप की है। एक साक्षात्कार के दौरान उन्हें पूछा गया कि क्या राग तथा समय का बंधन निभाना आवश्यक है? इसका उत्तर देने के दौरान उन्होंने इस बात की पुष्टि की है, कि उनकी नवनिर्मिती समय बंधन में रहकर ही हुई है। इसका प्रमाण हम अनूपरागविलास में देख सकते हैं। संक्षेप में देखें तो

भवमत भैरव, बीहड़ भैरव - प्रातःकाल

सहेली तोड़ी	-	सुबह
मधसुरजा	-	दोपहर ग्यारह से दो बजे तक
संजारी	-	सायंकाल
मालवती	-	रात्रि 8 से 12
अहिमोहिनी	-	रात्रि 10 से 12 आदि।

यहां हम यह अनुमान लगाने का प्रयास करेंगे कि कुमारजी ने इन नवनिर्मित रागों का समय किस प्रकार निश्चित किया होगा। कुमारजी इन रागों को 'धुन उगम' कहते हैं। इसका अर्थ यह है कि साधारण देहाती स्त्रियों द्वारा गायी गई धुनों को सुन कर, उन्हें परिष्कृत करने पर इन रागों का सृजन हुआ है। अनेक अवसरों पर कुमारजी ने यह खुद ही स्वीकार किया है कि, यह धुनें कुमारजी ने स्वयं सुनी है। धुन गाने का तो कोई समय होता नही है, किंतु जिन रीति रिवाजों के अवसर पर यह धुनें गाईं जाती हैं, उनका कोई निश्चित समय अवश्य होता है। जैसे, बलि देने का समय दोपहर का होता है। बकरे की बलि देने के लिये उसे माता मंदिर ले जाया जा रहा था, उस समय कुमारजी ने वह धुन सुनी जो उस अवसर पर बजाई जा रही थी। उस धुन की स्वरलीपि कर, उसका अभ्यास तथा परिष्करण कर कुमारजी ने मधसुरजा नामक राग का सृजन किया। चूंकि वह धुन अजाबलि के अवसर पर बजाई जा रही थी, जो कि दोपहर के समय ही सम्पन्न होता है, मधसुरजा राग का गायन समय भी दोपहर का ही रखा गया है। वसंत पोतदार जी को इस राग के समय के विषय में बताते हुए कुमारजी कहते हैं- 'अब मैं तुम्हे इस राग की जन्मकथा कहता हूँ। मधसुरजा यह बोलीभाषा का शब्द है। उसका खड़ी बोली में अर्थ मध्य सूर्य या मध्यान्ह का सूर्य ऐसा है। सारंग राग से प्रस्फुटित हुआ है मधसुरजा।

सारंग के स्वभाव के मर्मस्थान पकड़ने के बाद ही मैं मधसुरजा का सृजन कर पाया। तुम पूछोगे मैंने सारंग राग ही क्यों चुना? इसलिए कि सारंग यह मध्यान्ह काल में गाया जाने वाला राग है। बलि देने का मुहूर्त भी मध्यान्ह का ही होता है। ऐसा सर्वात्मक विचार होने के बाद सारंग की यह प्रशाखा बनी।'

यहाँ कुमारजी ने नवनिर्मित राग का समय निश्चित करने के लिए पारंपारिक रागों के समय का सहारा लिया है।

कुमारजी के अलावा अन्य भी महनीय कलाकारों ने नवरागनिर्मिति करते समय रागसमय का उल्लेख खासकर किया है। जैसे कि पं॰ रविशंकर जी ने बैरागी राग सुबह का निर्मित किया है। म॰ उस्ताद अल्लादिया खाँ साहब ने रात के मारूबिहाग एवं खोकर राग प्रचलित किये हैं। आधुनिक काल का उदाहरण है पं॰ श्रीकृष्ण नारायण रातंजनकर जी का, जिन्होने सालगवराळी राग का सृजन किया। इस राग के स्वरूप को देखते हुए इसे तोड़ी का प्रकार मान कर उसका गायन समय भी तोड़ी अंग के रागों का ही रखा, अर्थात् दिन का दूसरा प्रहर।

इस अनुभव के आधार पर भविष्य में प्रचलित होने वाले नए रागों के गायन समय के संबंध में हम ऐसी रणनीति निश्चित कर सकते हैं कि, नया राग किस पारंपारिक रागांग के निकट है यह देखकर उसका गायन समय नये राग को दिया जाय।

दक्षिण भारतीय/कर्नाटकी संगीत में राग समय का बंधन नही है, अतः उधर यह समस्या ही नही है। मगर हम जब किन्ही कर्नाटकी रागों को हिंदुस्थानी शैली में गाते हैं, उनकी समय निश्चित करनी पड़ती है। उदा. हंसध्वनी, कलावती, आभोगी आदि। यह राग अपने किस थाट के अंतर्गत आते हैं, उनका चलन पूर्वांगप्रधान है या उत्तरांगप्रधान आदि बिंदुओं के आधार पर उनका गायन समय निश्चित होता है। उदा. कलावती यह राग खमाज थाट के अंतर्गत आता है, साथ ही उसका चलन पूर्वांगप्रधान है, अतः उसका गायन समय रात्रि का दूसरा प्रहर निश्चित होता है।

ऐसा कोई राग, जो हमारे लिए एकदम नया हो, उसका समय किस प्रकार निश्चित किया जाय, इसका प्रात्यक्षिक हम कर के देखेंगे। उदा. कर्नाटकी संगीत का नाटक प्रिय यह 10वां मेलकर्ता राग है (नेत्र चक्र)। इसकी स्वरमाला निम्न प्रकार से है -

सा <u>रे</u> <u>ग</u> म प ध <u>नि</u> सां

(ऋषभ, गंधार व निषाद कोमल)

इस मेलकर्ता राग का एक असंपूर्ण प्रकार है, जिसे नाटभरणम् यह नाम है। आरोह में ऋषभ वर्जित करने वाला यह एक षाडव-संपूर्ण प्रकार है। उसका चलन निम्न प्रकार से है:

सा <u>ग</u> म प <u>नि</u> ध नि सां ।

सां <u>नि</u> ध <u>नि</u> प <u>नि</u> प म <u>ग</u> <u>ग</u> <u>रे</u> <u>रे</u> सा।

राग के इस आवन-जावन में कही विरामस्थान या स्वल्पविराम नही है। इस राग का 'हिन्दुस्थानीकरण' करना है तो उसमें विश्रांतीस्थान, स्वरों का अल्पत्व-बहुत्व निश्चित करना होगा। सबसे महत्वपूर्ण है वादी-संवादी निश्चित करना।

यह स्वर गा कर देखने पर यह ध्यान में आता है कि, धैवत स्वर को दो निषादों के बीच में लेने से उसे अपनेआप ही अल्पत्व प्राप्त हो रहा है। साथ ही इस राग के चलन में पंचम को प्राबल्य मिलता है। तो पंचम वादी स्वर का स्थान ग्रहण कर सकता है। ऋषभ कोमल होने से उसका पंचम के साथ संवाद नही होता, अतः षडज को संवादी बनाना होगा। इस प्रकार पंचम-षडज वादी-संवादी निश्चित हो सकते हैं। पूर्वांग में अवरोह करते समय <u>ग</u> <u>ग</u> <u>रे</u> <u>रे</u> सा ऐसा स्वरसमुदाय आता है। गंधार तथा ऋषभ का यह स्थायी वर्ण भी ध्यान देने योग्य है।

इस राग के स्वरूप का विचार किया जाय तो इसमें भीमपलास व भैरवी के अंग दिखाई पड़ते हैं।

आरोह में ऋषभ वर्जित व गंधार कोमल होने से सा ग म प ऐसा चलन बनता है, जो भीमपलासी या धनाश्री अंग दर्शाता है। पूर्वांग में आरोह में धनाश्री व अवरोह में कोमल गंधार के साथ कोमल ऋषभ का आविर्भाव होने से भैरवी अंग सामने आता है। उत्तरांग में नि ध नि सां, नि ध नि प ऐसा चलन है जो अल्प प्रमाण में शहाना राग से मेल खाता है। 'नि प' यह संगती भी कानडा अंग का आभास उत्पन्न करती है।

इस राग के समय का निर्धारण करने के लिये उपरोल्लेखित बिंदु निश्चित ही विचारणीय है। जैसा कि हमने अभी देखा, इस राग में भीमपलासी, भैरवी तथा कानडा के अंश दिखाई देते हैं। इन तीनों रागों का गायन समय अलग-अलग है। भीमपलासी दिन के तृतीय प्रहर में, भैरवी दिन के प्रथम प्रहर में तथा कानडा अंग के गायन का समय रात्रि तृतीय प्रहर में गाया जाना चाहिए, ऐसा शास्त्र कहता है। सूहा जैसे कुछ कानडा प्रकार दिनगेय भी हैं, जो दिन के तृतीय प्रहर में गाये जाते हैं। इसीलिए नाटभरणम् राग का गायन समय भी दिन का तीसरा प्रहर, या दिन के 11 से 3 बजे तक कभी भी रख सकते हैं।

पूर्व उत्तर रागों के नियम के अनुसार, जिन रागों का वादी स्वर उत्तरांग में होता है वह मध्यरात्रि से मध्यान्ह तक गाए जा सकते हैं। साथ ही, पंचम स्वर 'सा रे ग म प' इस पूर्वांग व 'म प ध नि सां' इस उत्तरांग दोनो ही में अंतर्भूत होने के कारण जिन रागों का वादी स्वर मध्यम या पंचम होता है वह अंग के मुताबिक मध्यरात्रि या मध्यान्ह के आस-पास गाए जाते हैं। इस वस्तु स्थिती को ध्यान में रखते हुए भी, मध्यान्ह के निकट का समय इस राग के लिए योग्य होगा।

यहाँ नए राग का समय निर्धारण करने के लिए हमने कौन सी पद्धति अपनाई, इसका हम विचार करेंगे। नए राग का प्रचलित रागों के साथ किस प्रकार का, किस अंग में साम्य है, इसका ध्यान रखते हुए प्रचलित रागों के अंग प्राबल्य के अनुरूप, उन के गायन समय से मेल खाता समय हमने निश्चित किया।

इस पद्धति को अपनाने का कारण यह था कि प्रचलित रागों का समय पूर्वोल्लेखित नियमों के आधार पर पहले से ही निश्चित होने के कारण, उसके आधार पर नए रागों का समय निश्चित करना ही योग्य होता है।

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Viksit Bharat @ 2047: The Role of Commerce and Management in India's Vision for a Developed Nation

Dr. Prakash sahare
R.S. Mundle Dharampeth Arts and Commerce College Nagpur
Corresponding Author: Dr. Prakash sahare
Email: sahareph@gmail.com
DOI-10.5281/zenodo.13927759

Abstract:

India's aspiration to become a developed nation by 2047, coinciding with the centennial of its independence, is both ambitious and achievable. This research paper examines the critical role that commerce and management will play in realizing the vision of "Viksit Bharat." It explores how these fields can contribute to economic growth, innovation, and sustainability, ensuring that India not only competes globally but also addresses domestic challenges of inclusivity and equity. The paper includes an objective analysis, a review of existing literature, and a discussion on strategic imperatives for the future.

Keywords: Viksit Bharat @ 2047, Commerce, Management, Economic Growth, Digital Transformation, Global Competitiveness, Sustainable Development, Public-Private Partnerships (PPP), Human Resource Development, Innovation and Entrepreneurship

Introduction:

India's journey towards becoming a developed nation by 2047 is grounded in its economic, social, and environmental goals. Commerce and management are key drivers in this transformative process. This paper seeks to explore their roles, with a focus on strategic development, challenges, and opportunities. As the world's largest democracy and a fast-growing economy, India's progress in these fields will have significant implications for global development.

Objective:

The primary objective of this research is to analyze the role of commerce and management in achieving the vision of a developed India by 2047. The study aims to:

1. **Identify** the key areas where commerce and management can contribute to economic growth and development.
2. **Analyze** the impact of digital transformation, global competitiveness, and sustainability on India's commercial and management practices.
3. **Evaluate** the challenges and opportunities presented by the evolving global and domestic economic landscape.
4. **Propose** strategic initiatives and policy recommendations to enhance the role of commerce and management in realizing the vision of Viksit Bharat @ 2047.

Review of Literature

Commerce and Economic Growth

Several studies have highlighted the relationship between commerce and economic growth. Bhattacharya and Patel (2020) argue that robust commercial practices are essential for sustaining high growth rates in emerging economies like India. Their research emphasizes the role of trade liberalization, investment in infrastructure, and regulatory reforms in boosting economic activity. Similarly, Sharma (2019) underscores the importance of commerce in creating employment opportunities, particularly through the growth of micro, small, and medium enterprises (MSMEs).

Digital transformation is another area of focus in the literature. According to Gupta and Mehta (2021), the rapid adoption of digital technologies, such as e-commerce, fintech, and digital payments, is transforming India's commercial landscape. Their study suggests that the integration of digital tools can enhance efficiency, reduce transaction costs, and expand market access, thereby contributing significantly to economic growth.

Management and Strategic Leadership

The role of management in national development has been extensively studied. Chandra (2018) explores the impact of strategic leadership on organizational and national outcomes, highlighting the importance of visionary leadership in driving innovation and sustainable growth. In the context of India, Rajan (2019) emphasizes the need for adaptive management practices that can respond to the challenges of globalization and technological change.

Human resource management is another critical area discussed in the literature. Bose and Srivastava (2020) examine the role of education and skill development in creating a competitive workforce. Their study suggests that management practices focused on continuous learning and development are essential for enhancing productivity and ensuring that India can compete in the global economy.

Innovation and Entrepreneurship

Innovation and entrepreneurship are identified as key drivers of economic growth in several studies. According to Desai (2021), fostering a culture of innovation is crucial for India to become a global leader in technology and industry. His research highlights the role of management in creating an enabling environment for startups, through policy support, access to capital, and mentorship.

The literature also discusses the importance of public-private partnerships (PPP) in promoting innovation. A study by the Confederation of Indian Industry (CII) (2022) emphasizes the need for collaboration between government and industry to drive R&D and technological advancements.

Sustainability and Inclusive Growth

The concept of sustainable development has gained significant attention in recent years. The United Nations' Sustainable Development Goals (SDGs) provide a framework for inclusive and sustainable growth. Kumar and Singh (2022) argue that commerce and management must align with these goals to ensure long-term prosperity. Their study emphasizes the importance of green trade practices, sustainable supply chain management, and corporate social responsibility (CSR) in achieving Viksit Bharat.

Inclusive growth is another key theme in the literature. Banerjee (2020) discusses the role of commerce in reducing poverty and inequality. His research suggests that inclusive business models, which cater to the needs of marginalized communities, can drive both economic growth and social equity.

Global Competitiveness

The literature on global competitiveness focuses on the need for India to enhance its position in the global economy. According to Sridhar and Menon (2021), improving product quality, adopting international standards, and fostering innovation are critical for enhancing India's competitiveness. Their study suggests that commerce and management practices must evolve to meet the demands of a rapidly changing global market.

The Role of Commerce in Viksit Bharat @ 2047

1. **Economic Growth and Development:**
   - Commerce will play a vital role in driving economic growth through increased trade, investment, and entrepreneurship. Key areas include boosting exports, attracting foreign direct investment, and supporting MSMEs.
   - Infrastructure development, including logistics and supply chain networks, will be crucial for sustaining growth.
2. **Digital Transformation:**
   - The digital revolution presents an opportunity for transforming India's commercial landscape. The integration of e-commerce, fintech, and digital payments will be central to creating a more efficient and inclusive economy.
3. **Global Competitiveness:**
   - Enhancing global competitiveness will require improvements in product quality, innovation, and adherence to international standards. Commerce will need to focus on diversifying trade partnerships and developing India's brand as a global leader.
4. **Sustainable Commerce:**
   - Aligning with sustainability goals will be essential for long-term success. Commerce must adopt green practices, reduce carbon footprints, and promote responsible consumption.

The Role of Management in Viksit Bharat @ 2047

1. **Strategic Leadership and Governance:**
   - Effective management will be critical for achieving Viksit Bharat. This includes strategic leadership in both the public and private sectors, fostering a culture of innovation and ethical governance.
2. **Innovation and Entrepreneurship:**
   - Management practices must support innovation and entrepreneurship, driving economic diversification and job creation. A strong start-up ecosystem, supported by incubators, accelerators, and venture capital, will be essential.
3. **Human Resource Development:**
   - Developing human capital will be central to India's growth. Management strategies should focus on education, skill development, and talent retention, ensuring a competitive workforce.
4. **Sustainable Management Practices:**
   - Sustainable management practices, which prioritize long-term value over short-term gains, will be key to achieving Viksit Bharat. This includes environmental, social, and economic sustainability.
5. **Public-Private Partnerships (PPP):**
   - Public-private partnerships will play a crucial role in infrastructure development, healthcare, education, and other sectors critical to achieving Viksit Bharat.

Challenges and Opportunities

While the path to Viksit Bharat @ 2047 is fraught with challenges, including socio-economic disparities and bureaucratic inertia, the opportunities are immense. By leveraging its demographic dividend, embracing technological advancements, and fostering a culture of innovation, India can overcome these challenges and position itself as a global leader.

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Investing in Employee Well-Being

Dr. Govindaraja A Bhatta, Assistant Professor, Commerce Deptt, R.S. Mundle Dharampeth Arts, Commerce College, NAGPUR

***ABSTRACT*:**

Employees and employers are inseparable interdependent organs for an organisation. A perfect balance in relations of both is imperative for organisation stability and sustainability. The study examines the relationship between employee well-being and workplace productivity. The goal of this paper is to portray that business outcomes have overshadowed employee wellbeing and therefore the study seeks to establish a positive correlation between employee performance and the effects of the same of the Human resource practices of the organisations Focus on employee wellness is a new phenomenon in case of Indian Companies The reality that employees are happier, satisfied and efficient if there is a constant watch on employee welfare and well-being. Their performance increases manifold and this fact is in limelight these days. Organisations are presently focusing beyond the boundaries of employee fitness and concentrating more on employee wellness including mental health, fitness and family welfare Wellness has a direct effect on job satisfaction and performance which will raise morale, output and holistic performance.

Key words: Well-being, Mental Health, Morale, Positive correlation.

Introduction:

Organisational employees and work force are the most important cluster in the organisational structure as they form the most vital group taking the organisation on path of progress through completion of tasks and targets in time. The employees put in their best efforts and take extra caution at work place to bring out the maximum excellence in work. The employees always look forward for bettering their work style to place themselves in the work mould. As the employees are expected to carry out work with maximum caution and learn new methods of performance, similarly the employers are also duty bound legally and from humanitarian view point to enhance the welfare and well-being of employees. Presently employers are taking steps to support health and wellbeing in the workplace, with 72% organisations placing greater importance on this Employee well-being post COVID-19 period. While this is the right thing to do from a people-centric perspective, businesses also hope to see an improvement in employee and business performance as a result. Based on this fact the question arises is, how does employee health affect business performance? In this article, we propose and try to discuss the relationship between them and consider how employee well-being and investing in these programmes/ schemes impacts aspects of business performance.

What is the relationship between employee wellbeing and performance?

This big question needs to be answered keeping in view the wide angle. The relationship between employee health and business performance is significant and well-documented. Broadly speaking, good employee health improves business performance and vice versa. However, looking at this correlation more closely, specific aspects of employee health have been shown to link to different aspects of business performance. For example, a study suggests that good mental health can improve an employee's cognitive flexibility and their ability to problem solving. It also indicates that a more positive mental state enables employees to build better interpersonal relationships, which enables them to seek support and knowledge from others more effectively.

- **Employee health impacts various aspects of business performance:** Productivity, job satisfaction, presentism, motivation, recruitment, sickness and profitability of business are affected. Employee mental health has a significant correlation to business performance. There are many other ways in which employee health affects business performance, Some of the most widely recognised are:

Productivity: The link between employee health and productivity has been continuously studied. When the employees are physically and mentally fit and healthy, they are more likely to have higher energy levels, positive outlook focus and cognitive abilities. Good health always allows employees to perform to their maximum potentials and churn out their best, leading to increased productivity.

Motivation: It is a known fact that When employees are healthy, they generally feel better and have higher levels of wellbeing. Good health enables employees to approach their work with enthusiasm, energy and a positive attitude. On the contrary, poor health can result in low motivation and reduced commitment to tasks.

Sickness: Employee health directly impacts the frequency and duration of sickness. In 2022, approximately 185.6 million working days were lost due to sickness, injury or employee health issues. When employees are in good health, they are less likely to experience frequent illnesses, resulting in fewer sick days. This, in turn, contributes to maintaining productivity levels and minimising the costs associated with sick leave.

Presenteeism: It refers to employees who are physically present at work but not fully engaged or more productive due to health related issues. Poor employee health can lead to increased presenteeism, where employees may struggle to perform at their best due to illness, chronic conditions or mental health challenges and uneasiness or lack of concentration. This can significantly impact overall productivity and performance

Job satisfaction: Employee health is closely linked to job satisfaction. When employees are in good health, they tend to experience higher levels of job satisfaction. Good health enables employees to perform their tasks effectively, experience less stress, and have a better work-life balance. All these factors contribute to higher job satisfaction levels. The link between job satisfaction and health appears to be cyclical. Some studies suggest that employees who have better job satisfaction feel healthier and are less likely to experience health deterioration.

Profitability Employee health has a significant impact on the organisation's profitability. Healthy employees are generally more engaged, motivated and productive. There is Reduced absenteeism, fewer sickness-related costs, and improved overall performance that directly contribute to increased profitability. It is seen that those organisations which prioritise employee health and wellbeing often foster a positive work environment, This surely aids higher employee retention rates and attracts customers It has been observed that in those situations where companies prioritise employee health, wellbeing and safety they experience better stock performance and employee retainability.

Areas of Investing in Employee well-being:

Well-being needs maximum attention in present scenario and as such the areas where investment can be made needs to be discussed more sincerely. Knowing how to support employee wellbeing isn't always easy, especially given that employee health and wellbeing are multi-faceted. Creating an employee health and wellbeing strategy will help determine the support you provide and how you deliver it. The investment in training, educational, health, social insurance programmes must be strongly put forward in all organisations. Some important areas where investment needs to be discussed are as follows:

- **Physical:** gym membership, health insurance, Critical disease care, dental and eye care, health screenings, general health camps for the employee family
- **Mental:** counselling, CBT, app subscriptions, support groups
- **Financial: D**ebt advice, retirement planning, discounts and vouchers, cost of living support

- **Social:** meet-up groups, volunteering opportunities, community initiatives, Social exposure through group activities.
- **Employee training:** outdoor training, training camps, training sessions and schedules, education and qualification enhancement seminars.

The employees will certainly benefit in their career if these and many more well being areas are followed.

1] Improves Employee health behaviour

2] Increases employee productivity and Employee engagement

3] Boosts Morale and reduces stress levels

4] Improves employee attendance and fosters teamwork

Conclusions:

Employees are the real strength of any unit. Carefully tackling them and trying to make them comfortable in the job requires time to time investment in welfare activities which need to be meticulously done. At the same time care must be exercised that the well being measures initiated by institutions reach the real beneficiaries. welfare measures must aim at long term benefits and reap long lasting advantage for both employers and employees. Employers must think of introducing and implementing such schemes which will reduce absenteeism, overlapping and stress. This will lead to all round satisfaction among workforce.

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Hospitality Industry in India: Challenges and Solutions

Dr. Govindaraja A Bhatta
Assistant Professor [Commerce]
R.S. Mundle Dharampeth Arts & Commerce College, Nagpur

Abstract:

Hospitality is the flourishing sector in Indian Economy and has spread its tentacles nationwide. The mushrooming industry has also brought along with it several key challenges which need to be addressed sooner than later. This research aims at highlighting, reporting and upcoming trends expected for the hospitality industry in India. The study also discusses evolution and main characteristics of Indian Hotel Industry, discussing what is to be expected in near future and what are the key challenges that the Industry needs to tackle in an emerging global context. This research study also analyses the impact of these changes on human resource development and management. The key issues in the context of the hospitality industry in India are in the areas of strategy and finance, licenses and policies, room inventory, technological hiccups, cost and revenue management, growth issues, safety and security concerns and talent management. Even though there are numerous challenges they can be overcome with implementing some novel measures.

Keywords: Hospitality, Hotel Industry, Tourism Challenges

Introduction:

The Indian Hotel Industry has grown leaps and bounds in all the directions and all states in India. This industry has vast growth potential due to the positive impact of demand-supply scenario, investments, natural factors and government initiatives for tourism sector. To develop a better understanding of the industry this research discusses on an all-inclusive comprehensive scale of Indian Hotel Industry, which elaborates trends, future aspects and challenges keeping in mind the various factors determining functioning of industry. This is a small yet significant attempt to analyse the characteristics of Indian Hospitality Industry as it is a major revenue earner for the country. Hotel industry occupies a vital place in service sector with regard to national economic development. Main characteristics for Hospitality Industry in India are its seasonal character, labour intensive nature and fragmentation. The Indian Hospitality Industry faces numerous challenges predominantly because of shortage of skilled employees, high turnover of quality workforce, excess of room inventory, cut throat competition amongst various players, safety issues, high guest expectations, employee retainability in Hospitality Industry Apart from these infrastructural bottlenecks, compounding costs, stagnant innovation, uneven progress and poor organization also plague the Hospitality management. This paper further focuses on the key areas of hospitality industry wherein special watch needs to be kept on upcoming markets expectations, changing demographic features, sustainability, latest technological advances and disaster management.

The purpose of this study is to assess the present situation of the hospitality industry in India and the challenges ahead. The research highlights the key challenges encountered by the industry. This study helps in analyzing concerns that are likely to be faced by owners and managers of the hospitality businesses and those who consume their product and services.

Hospitality Industry is one of the oldest industries in the world, was patronized initially by businessmen (traders), philosophers, religious people and scholars since ancient times. In olden days the ***Mutts, Dharamshaalas, Yatri nivas, sarai and yatri bhavans***drew a rosy picture to attract the travellers and tourist. In modern day it has taken the form of hotels, motels, inns, resorts and restaurants. In a larger and broader perspective Hospitality Industry is involved in tourism, entertainment, accommodation, transportation (airlines, railways, car rentals, cruise liners and travel intermediaries including travel agents and tour operators. tour operators. The Government of India made their first ever investment in hotel industry – The Ashoka Hotel, New Delhi. In 1966, a merger took place between Janpath Hotel India Ltd. and India Tourism Transport Undertaking Ltd giving birth to The India Tourism Development Corporation (ITDC). The Indian government gave another push to the tourism sector by creating the Ministry of Tourism and Civil Aviation.Tourism was given the status of an Industry in 1986. The government of India after conducting a critical assessment in 1987 allowed franchising of 3 and 4 star hotels by an Indian firm. In 1991, Tourism was made a priority sector, creating the hospitality industry eligible for regular approvals of hotels where 51 % of equity was being made available by a foreign partner.

Characteristics of Indian Hospitality Industry:

1] **High Seasonality**: The Indian hotel industry generally enjoys its pinnacle of demand during October–April, whereas the monsoon months' experience low demand in some areas. The areas of North East enjoy the rainy season with flood of tourist wanting to enjoy the green nature. It is the quarter of December - March that earns 60% of the year's turnover for Indian hotels specially the hilly areas experiencing snowfall. During the Summer season almost all the hotels are packed to occupancy because of the vacation period. In slack season the revenue comes from Meetings, Incentives, Conferences and Entertainment segment and offering attractive packages during the lean period.

2} **Labour Intensive**: Hospitality Industry lays emphasis on the quality of manpower and employs skilled, semi-skilled, and unskilled workers both in a direct and indirect manner. The average employee-to-room ratio in India is at 1.6 (2008-09), which is greater than international standards. Since the branded international hotels have entered and are determined to flourish in the Indian industry across different categories, the hotel companies in India need to reconsider their staffing requirements by becoming more competent in manpower management.

3] **Fragmented**: A large number of small and unorganized players account for a huge market share in the Indian hotel industry making it highly fragmented. The Taj, Oberoi, ITC Hotels, and East India Hotels comprise of the major players in the organized segment

Challenges faced by the hospitality Industry in India

1] License Issues: Indian hotels need to apply for multiple licenses undergoing a red-tapism by government agencies. Numerous types of licenses as per the state in which it is situated needs to be obtained. This activity of procuring licenses delays the project which is detrimental to the interests of management. as compared to other progressive countries where the license procedure is simple and strict

2} **Shortage of skilled employees**: Unavailability of diligent, dedicated sincere skilled workforce in different skill levels is one of the biggest hurdles faced by the Indian Hospitality Industry, especially in the interior regions of the country which attract tourists but they are not able to sustain skilled and educated employees

3] **High turnover of quality workforce**: The hotel industry in India finds it very difficult to retain the workforce even with training and development and the attrition levels are very high. Hotel Industry professionals are easily absorbed at better paying industries like retail, banking, aviation and other service sectors

4]**Excess of Room Inventory:** Working income declines in the as there is a gap in the number of rooms coming up and the meagre increase in number of customers. Due to surplus room inventory in 14 major metropolitan cities in the country, operating profit margins of these hotels have dropped to the lowest in last ten years

5]**Competition faced amongst various players:** The industry is witnessing increasing competition with the arrival of new players, new products and new systems. The competition from neighbouring countries is equally severe with South East Asia coming up as a cheaper destination with better infrastructure.

6]**Safety issues**: The international tourists are mostly at the receiving end as they are hassled, cheated, looted, insulted and mugged in India. In recent times online frauds are on the increase. Tourists' confidence about the protection and security in tourist destination is a disturbing matter which affects visiting choice and the expansion of tourism industries.

7]**Infrastructural bottlenecks** Infrastructural facilities like below average quality and need of upgradation to global standards also poses a challenge Lack of proper synchronization between the types of transport and communication leads to wastage of time, money and energy of tourists. Therefore, a consumer centric approach and better excess to infrastructure needs to be worked upon for the recognition.

8] **Compounding costs:** Hotel Industry in India is losing its charm as a cost-effective destination due to escalating costs in hotels. High cost of land often discourages investors in construction of new hotels. Also, there is no rationalization of taxes as states charge different rates. The other costs causing a lot of distress to the industry are utilities (electricity, fuel, water, solid waste disposal etc), payroll, taxes, social media and technology.

Suggestions to overcome the above challenges:

Better HR Practices:

a. Productivity related Pay: Hospitality industry, is labour intensive and the personalised service cannot be replaced by automation. Restructuring work process and then fixing the benefits of increased productivity can yield positive results.

b. Alternate Scheduling: It means a staffing schedule that differs from usual work-day This includes Part-Time and Flexi-Time, Compressed Work Schedules, and Job Sharing. Which allows employers to fill in gaps and serve as helping hands reducing labour costs.

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c. Develop Internal Programs: Hotels should design internal programs in order to generate attractive career opportunities for their employees. The employees should see their job as a professional development prospect with genuine potential for progression.

d. Better Communication: When goals, objectives and pertinent daily business information are poorly communicated, they result in confusion and loss of confidence amongst employees.

e.Promoting Best Practices: If "Best Practices" are constantly practiced as a mandate, organisations can deliver even flourish in toughest of periods.

Conclusion

The suggested measures if practiced could fuel economic growth not only for the hospitality Industry but would also contribute to the Indian Economy. Technological advances need to be adopted quickly. The delayed process of license acquisition must be simplified by government of India to make the entire process quick, simple and transparent. There should be tax rationalisation. For Indian hospitality to project itself as a safe and tourist friendly business there is a need for continuous research and innovation. With provision of better infrastructural facilities along with a stable socio political and economic environment, the sentiments of tourists will definitely improve towards India. The Indian cultural belief of **ATITHI DEVO** BHAVA must be implemented in letter and spirit to make the hospitality industry a profitable lucrative industry in the coming years.

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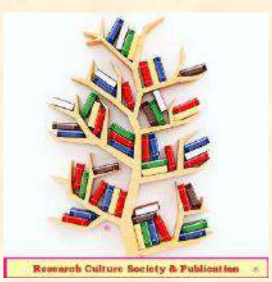

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I am delighted that our organization is jointly conducting the "**International Conference on Literature, Languages and Linguistics Studies"** with the theme of literature and languages, in association with 'Research Culture Society' on 17 – 18 February, 2024.

This conference series forum aims to observe the overviews and concept of languages, literature and Religions in the 21st century. To Identify and analyze the latest trends of literature, linguistics and Teaching languages. Identifying various knowledge forms of literature and linguistics.

I honestly hope that this conference will provides a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent trends in literature, languages, culture, religions and its concern related to writing and study of the literature and religion materials.

May hearty wishes and regards for the great success of this important international conference.

Thank you!

J. Adrina

Prof. J. Adrina
ICLLLS-2024 Conference Chair
Founder Member
International Languages Council, Europe.

Dr.C. M. Patel

Director, RESEARCH CULTURE SOCIETY

Web: www.researchculturesociety.org

Email : director@researchculturesociety.org

Message

Dear Professional Colleagues,

It is gratifying to note that 'International Languages Council; in collaboration with 'Research Culture Society' (Government Registered Scientific Research organization) are organizing - 'International Conference on Literature, Languages and Linguistics Studies' during 17 – 18 February, 2024.

This international conference will allow the participants and academicians to reveal their endeavors, extend academic professional networks and jointly ascertain the existing and upcoming research instructions guidelines and presented thoughts at international level. I believe that all the presentations in this academic research conference will bring interesting topics witch fruitful discussions.

I believe, this International Conference will help in redefining the strong connection between students and academicians from different institutions. An additional goal of this international conference is to combine interests and research related to Literature and Religion field of academia, researchers and students.

My best wishes to the committee members, speakers and participants of this world conference.

Dr.C. M. Patel

Director, Research Culture Society.

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The Role of Unconscious in Directing the Character's Behavior: A Psychoanalytic Study of Tayari Jones's *The Untelling*

[1]Ms. N. Shajitha Parveen, [2]Dr. A. Ramasubbiah
[1] Research Scholar, PG & Research Centre of English, Mannar Thirumalai Naicker College, Pasumalai, Madurai.
[2] Associate Professor of English, PG & Research Centre of English, Mannar Thirumalai Naicker College, Pasumalai, Madurai.
[1]Email- parveen.nsss@gmail.com, [2]Email - mannarsubbu@gmail.com

Abstract: Tayari Jones's *The Untelling* depicts a vivid, unforgettable portrait of Ariadne Jackson who seeks to overcome the trauma of her past. This paper aims to examine Tayari Jones's *The Untelling* from an analysis from a psychoanalytic viewpoint focusing on how the unconscious mind influences the character's actions. Sigmund Freud believed that human behavior is influenced by unconscious causes. Tayari Jones effectively utilizes specific literary storytelling approaches to uncover the hidden facets of human people, drawing inspiration from Freud's thoughts and theories. Psychoanalytic interpretations of Tayari Jones's concepts and methods assist readers in generating new interpretations and developing innovative insights into the comprehension of African American literature. The research aims to demonstrate that in a stable character, social and psychological aspects are properly integrated, resulting in a balanced character. Moreover, the analysis of the protagonist Ariadne Jackson from a psychoanalytic perception will reveal the implicit meanings of the novel.

Key Words: Tayari Jones, *The Untelling*, Sigmund Freud, Unconsciousness, Psychoanalysis, Narrative technique, Character's behavior, African trauma.

Introduction:

This study explores the unconscious aspects of the fictitious characters of Tayari Jones's *The Untelling*. Most of the characters in this tale exhibit a level of lunacy that poses a danger to both themselves and everyone in their vicinity. This absurdity is primarily caused by their past pain and anxieties for their future. Most often, these personal traits lead to intense psychological conflicts in the characters' subconscious. An analysis of "The Untelling" from a psychoanalytical perspective delves into how the characters' actions and behaviors are shaped by the unconscious mind and external situations. The study seeks to emphasize the influence of the unconscious mind on human behavior and how social, historical, and cultural factors contribute to shaping the characters in the novel, drawing from Sigmund Freud's theories.

Literary Background :

This study focuses on culminating the psychological effects of trauma and the quest for a positive future in the light of Tayari Jones's novel *The Untelling*. When a person like Ariadne

Jackson faces a series of traumatic events as part of social, religious, or racial conflicts, it leaves lasting damage in the person's psyche that makes them mentally lost and detached. Trauma study comprehends psychoanalysis, cultural studies, post-structuralism, philosophy, and history. The crucial propulsion provided by Freud in the field of Trauma has been enlarged by theories like New Historicism, Cultural Materialism, Post-colonialism, Marxism, and Cultural studies. Furthermore, a fresh genre of trauma fiction has evolved in the field which endeavors to represent trauma through literary techniques and devices such as stream-of-consciousness and flashbacks. Tayari Jones uses specific literary narrative techniques to express the traumatic life of the novel characters in *The Untelling*.

Vickroy in *Trauma and Survival in Contemporary Fiction* (2002) analyses novels like Toni Morrison's *Beloved* and *Jazz,* and Marguerite Dura's *The Lover,* etc. to discover the elements of trauma in narration. The paper analysis carefully examines the personalized responses of these novelists to traumatic situations using trauma theories and also scrutinizes the intricate relationship between trauma and identity formation. In the book *The Trauma Question* (2008) Roger Luckhurst attempts to explore the relationship between cultural memory and trauma. He describes the problematical symptoms of trauma. He explains that when a person experiences traumatic events like accidents, wars, disasters, or other extreme 'stressor' events that leads to creates certain identifiable somatic and psycho-somatic disturbances in the person's mind. The protagonist, Ariadne Jackson, observes her father and infant sister's demise in a vehicle crash in the story. Jones in her novel *The Untelling* states the cluster of Ariadne Jackson's symptoms related to how 'her traumatic past event is persistently re-experienced in later situations'- through intrusive flashbacks in her mind.

Researchers have mostly focused on African-American fiction, examining themes such as racism, patriarchy, sexism, discrimination, and marginalization, with a predominant sociological perspective. The principal characters in the novel The Untelling display the psychoanalytic assumption about their unconscious behavior. The paper explores how the different ideas and concepts of psychoanalytic theories can be applied to Jones's *The Untelling*. Most of the characters in the novel represent their characteristic features and also their major psychological and social essence. An investigation of the characters' socio-cultural behavior in the novel "The Untelling" is conducted by examining their unconscious propensities through the lens of Sigmund Freud's theories.

Objectives of the Study :

The objectives of the study were:

a. To explore the novel based on its structural and narrative elements.
b. To analyze the novel from a psychoanalytic approach.

Research Methodology :

The study employed a descriptive qualitative methodology utilizing the psychoanalytic approach developed by Sigmund Freud. The information was extracted from the novel "The Untelling" by Tayari Jones. The investigation included the analysis of the structural elements and characterization of the key characters in the novel. The researcher utilizes the literary research method to collect references about the primary character and emotional management. The details were examined to gain understanding and connections in line with the research goal. The researcher utilized the psychoanalytic approach and concentrated on the ego defense mechanism during the examination of the data.

Theoretical Framework :

Literary criticism's psychoanalysis is derived from Sigmund Freud's psychoanalytic theory Freud introduces the psychoanalytic theory as the idea that "the repressed self will resurface." Freud proposed that suppression in the unconscious influences the behavior of the characters examined in Jones's The Untelling. Jones's protagonist Ariadne struggles hard to speak openly about her repressed memories, thoughts, or feelings that leads to anxiety. However, she could not convey how she feels to anyone in the novel. She hides her physical issues from her boyfriend which reflects her repressed collision in the unconscious mind that is presented in her behavior. When her boyfriend Dwayne knew the truth, he said, ""So what are you going to do about it? Untell the lies? Unsign the papers for me to get my boy back?" I could have cried then, using my tears to show the breadth of my regret. But the sight of my remorse spilling down my face would provide no comfort for Dwayne, no relief for me." (p. 314)

In addition to that, McCartney describes that psychoanalysis focuses on "understanding individuals by desires hidden deep within the mind and revealing their connections with the conscious surface." He also highlights the idea that "for the critic undertaking a psychoanalytic reading, three Freudian categories are essential: the unconscious; the sexual origin of human motivation in repressed infantile incestuous desire; and the symbolic manifestation of unconscious wishes in dreams, jokes, errors, and significantly in literary works" (Green 597).

Jones employs Freud's theory of the unconscious mind to examine characters' motivations and illogical behaviors in the novel "The Untelling." Aria's bitterness is shaped by her early intuition, demonstrating how the subconscious impacts behavior. Freud divides the mind into three primary components: the id, ego, and superego, to elucidate personality development and the origins of mental disorders. The id is the primary source of psychological activity, embodying unconscious, spontaneous, and instinctual behaviors. The ego emerges from the id to facilitate the socially appropriate manifestation of instincts. The ego is accountable for actions in the physical world and operates in the conscious, preconscious, and unconscious parts of the mind. Thirdly, the super-ego influences the personalized moral standards and ideologies that we receive from one's parents and society. It lays out guidelines for forming judgments and it exists in the conscious, preconscious, and unconscious mind. (Freud, Introductory Lectures on Psychoanalysis, 27). Psychoanalysis believes that a dominant personality depends on the stable interaction of the id, ego, and superego.

On account of Freud's psychoanalytic postulation points to disclosing repressed feelings and beliefs, he recommends "talking-cure" as a way out for the afflicted repressed unconscious. Freud believes that the talking-cure procedure consists of collecting and divulging those excruciating memories in the presence of a selected listener. (Freud, Studies on Hysteria, vol. 2). The talking-cure technique involves a patient recounting painful memories to a listener who pays close attention and can relate to similar experiences, resolving conflicts without involving evaluations or assessments. Jones validates this technique in his novel. For example, At the end of the story, when Ariadne says: "Our past is never passed and there is no such thing as moving on. But there is this telling and there is such a thing as passing through." (p.324). Freud asserts that the central concept of humankind is his/her unconscious energy which is devised of the concealed desires and urges i.e. The unconscious energy is transfigured and aids one to build and generate positive energy.

Analysis & Discussion :

To study the novel characters in detail, the analysis starts with the protagonist Ariadne Jackson who suffers from real painful unconscious repressed memories. Ariadne lost her lovable father and infant sister in a tragic car accident and was later left alone by her mother and elder sister even though they all live in Atlanta. Jones portrays Ariadne through her first-person narration to explain her life from her perspective. “Ariadne, my given name, the one that’s on my driver’s license is the sort of name that you’re supposed to grow into…Names that fit us like oversized coats, trimmed in seed pearls, gold braid, and the hides of baby seals.” (p.1) Ariadne recalls her past memories through her narration. Jones uses stream-of-consciousness and flashback techniques to portray her characterization of undergoing psychotic traumas. “I know what happened next, although I didn’t see it. My eyes were on the nut-crusted sides of the red velvet cake when a blue El Dorado barreled down the left side of Hunter Street, just after Mosely Park…Then the car lunged to the right, to the left, and back again.” (p.6) Aria’s repressed unconscious feeling started after her father and infant sister died in front of her eyes. ““Are my daddy and Genevieve going to die?” I asked Colette.” (p.10)

Exploring Ariadne's painful memories and flashbacks helps to understand her problems. Ariadne chooses the talking-cure method to guide her suppressed unconscious thoughts in order to improve her life. In *The Untelling*, Jones employs narration to liberate and heal both Ariadne and her mother from their dreadful previous events. “My mother, who lives less than ten miles away but never visits, sends me news clippings snipped from the back pages of the Journal-Constitution, little news articles about rapes, murders, and drug busts in the west End. She keeps me informed so I will always be aware of how safe I am not.” (p.17)

The female protagonists in Jones's story are impacted by their limited parenting rights, resulting in feelings of bitterness and psychological suffering. These characters have physically and psychologically eliminated their parents, leading to psychological difficulties. Freud's theory proposes that unresolved conflicts from early infancy continue to affect individuals in adulthood as a result of traumatic experiences. To mitigate their issues, people establish other connections, which are misdirected and result in psychological pain. For instance, Ariadne craves attention from her partner, Dwayne, due to her anxiety about preserving their relationship. Freud's theory proposes that a child's typical development relies on establishing robust connections with family members. The oral, anal, and phallic stages are the first three significant phases in a child's psychosexual development, with the oral stage being essential for getting care and support. When these needs are not fulfilled at all or fulfilled in a confused manner, the child faces psychological insecurities and other disputes. The child may either repress these needs or look for an alternative that torments the unconscious constantly. (Freud, Three Essays on the Theory of Sexuality, SE, 7)

Jones incorporates stream-of-consciousness and memories in her story to provide a deep insight into the protagonists' unconscious brains, enabling female characters to openly convey their ideas and emotions. Through this technique, one can realize how every character attempts to power the unconscious. And further they also sustain bitterness, when they judge all encounters in the light of their psychic dispute. The narrative technique of stream-of-consciousness aids in intensifying the psychological exploration of each character.

Conclusion :

This paper aims to analyze Tayari Jones's novel "The Untelling" to explore how suppressed memories might resurface from the unconscious mind and influence the characters' actions. The characters' behavior in this work has been examined using the Freudian concept of the unconscious. The article suggests that the parent-child relationship significantly impacts the characters' behavior and physical well-being in adulthood. This idea is a universal human experience not tied to any particular social, racial, cultural, or sexual background. All female characters in the story experience double victimization. Due to exploitation by both their families and social environment. It presents these personalities as the optimal subjects for applying Freud's theory of the unconscious.

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"Mythical Mysteries: A Comparative Exploration of Supernatural Dimensions in Devdutt Pattanaik's and Ashwin Sanghi's Literary Imagination"

***Diksha Rani, Dr. Renu Sharma (Supervisor)**
Department of English, Desh Bhagat University
Mandi Gobingarh; Distt. Fatehgarh Sahib; Panjab, India
Email - 01diksha09@gmail.com

Abstract: *This study delves into the captivating world of Indian mythology as interpreted by two prominent contemporary authors, Devdutt Pattanaik and Ashwin Sanghi. This study conducts a comparative analysis of the supernatural dimensions embedded in their respective literary works. By scrutinizing the unique approaches and interpretations employed by Pattanaik and Sanghi, the research aims to uncover the diverse layers of mythical narratives and the infusion of supernatural elements in their literary creations. The exploration encompasses a detailed examination of the authors' storytelling techniques, characterizations, and thematic choices related to the supernatural. Through this comparative lens, the study seeks to contribute insights into how these writers navigate and reimagine the mystical realms of Indian mythology, offering a nuanced understanding of the interplay between the mythic and the supernatural in contemporary Indian literature. This research embarks on a captivating journey through the rich tapestry of Indian mythology, as woven by the pens of two distinguished contemporary authors, Devdutt Pattanaik and Ashwin Sanghi. The study undertakes a meticulous comparative analysis, focusing on the infusion of supernatural dimensions within their literary landscapes. Through an in-depth examination of selected texts, the research seeks to unravel the distinct narrative techniques and thematic choices that Pattanaik and Sanghi employ to bring the supernatural to life. The investigation delves into the portrayal of mythical characters, the construction of otherworldly realms, and the underlying philosophies that shape their literary imagination. By scrutinizing the interplay between myth and the supernatural, the study aims to shed light on how these authors interpret and reinterpret age-old myths, breathing new life into ancient stories. The comparative lens applied in this research not only highlights the divergent artistic approaches of Pattanaik and Sanghi but also offers a broader understanding of the evolving nature of mythological narratives in contemporary Indian literature.*

Keywords: *Supernatural, Fantasy, Mythology, Enchantment, Reality, Dimensions, Meticulous.*

INTRODUCTION:

The rich tapestry of Indian mythology has long been a source of inspiration, contemplation, and reinterpretation. In the contemporary landscape of literature, two prominent voices, Devdutt Pattanaik and Ashwin Sanghi, have emerged as maestros weaving their narratives around ancient myths and mystical realms. This comparative exploration delves into the depths of their literary imagination, focusing on the infusion of supernatural dimensions within their works. As storytellers of myth and magic, Pattanaik and Sanghi invite readers into worlds where gods and mortals coexist, challenging conventional boundaries and redefining the known boundaries of the human experience. Devdutt Pattanaik, a prolific mythologist, and Ashwin Sanghi, a master of historical and mythological thrillers, bring distinctive perspectives to the table. Pattanaik, with his insightful retellings and profound analyses, unravels the layers of Indian mythology, offering readers a nuanced understanding of cultural, moral, and spiritual dimensions. On the other hand, Sanghi, a master weaver of historical conspiracies, seamlessly blends ancient wisdom with contemporary narratives, creating intricate plots that span across timelines and genres. The title, "Mythical Mysteries," encapsulates the essence of this comparative journey, where the mythical and the supernatural converge. This exploration seeks to unravel the threads that bind their narratives, examining how each author navigates the realms of gods, demons, and cosmic forces. Through an examination of select works, this study aims to discern the unique narrative techniques, thematic choices, and the philosophical underpinnings that distinguish Pattanaik's mythological retellings from Sanghi's historical mysteries. As we embark on this comparative odyssey, we anticipate a voyage through enchanted realms, where the boundaries between reality and the supernatural blur, and where the echoes of ancient myths resonate with the contemporary echoes of the authors' imaginations.

Literature Review :

Sneha Tripathi (2020) wrote in her Research Paper entitled "**Devdutt Pattanaik's Exploration on Myth"** about the collection of ancient tales that mirror reflecting the values and beliefs of the societies that gave birth to these myths. Pattanaik's work transcends the boundaries of time, linking the profound teachings embedded in mythology to present-day challenges. He emphasizes the practical applications of mythological lessons in areas such as ethics, leadership, and human behavior. This bridging of the ancient and the modern allows his audience to appreciate the timeless wisdom contained in these age-old narratives.

M. Sagayasophia (2020) wrote in her Research Paper entitled "**Mythology Coherence in Ashwin Sanghi's The Krishna Key "** about the term "Avatar" in Hindu mythology describes the 10 manifestations of the god Vishnu. The researcher concentrates on animal avatars that take on many shapes, such as Matsya, Kurma, Varaha, and Narsimha, who rescues virtuous devotees, defends the planet from demons, and assumes human form as Ram.

Cultural Studies Analysis: A Comparative Perspective on Devdutt Pattanaik and Ashwin Sanghi

In examining the literary contributions of Devdutt Pattanaik and Ashwin Sanghi through the lens of Cultural Studies, we gain valuable insights into the ways in which their works both reflect and shape cultural attitudes and perspectives within contemporary Indian society.

Pattanaik's works serve as cultural artifacts that bridge the ancient and the modern. His explorations of Indian mythology are deeply rooted in cultural traditions, offering readers a window into the rich tapestry of beliefs and practices. Through the lens of Cultural Studies, Pattanaik's narratives become a means of cultural preservation and reinterpretation. His inclusive approach to mythology, which transcends regional and religious boundaries, aligns with the pluralistic ethos of Indian culture.

Ashwin Sanghi known for his historical and mythological thrillers, infuses his narratives with a contemporary pulse that resonates with diverse audiences. Through Cultural Studies, Sanghi's works can be seen as reflections of the evolving cultural landscape. His blending of ancient wisdom with modern contexts mirrors the complexities of India's sociocultural dynamics. The incorporation of historical and mythological elements in his stories prompts a reevaluation of cultural narratives, challenging established perspectives and fostering a dynamic cultural discourse.

When comparing the two authors, the Cultural Studies lens reveals nuanced distinctions in their cultural engagements. Pattanaik's emphasis on inclusive mythology aligns with a celebration of India's cultural diversity, fostering a sense of unity through shared narratives. In contrast, Sanghi's narratives, while rooted in tradition, project a more dynamic cultural dialogue, where historical and mythological elements serve as points of departure for exploring contemporary issues. The comparative analysis unveils how each author navigates the delicate balance between cultural preservation and adaptation, contributing to the ongoing construction of a multifaceted cultural identity. In essence, the works of Pattanaik and Sanghi, when viewed through the framework of Cultural Studies, illuminate the dynamic interplay between literature and culture, offering a profound exploration of how myth and the supernatural contribute to the continuous evolution of Indian cultural narratives.

Comparative Analysis in context of Fusion of Supernatural and Mythology

Pattanaik's literary canvas is a tapestry woven with the threads of mythology, where gods and mortals engage in timeless dialogues. His works, whether scholarly analyses or narrative retellings, intricately integrate the supernatural within the mythological framework. Pattanaik's strength lies in his ability to demystify complex mythological narratives, making them accessible to a broad audience. The supernatural, in his writings, becomes a conduit for exploring profound philosophical questions and moral dilemmas, offering readers a journey into the mystical heart of Indian mythology.

Ashwin Sanghi navigates the corridors of history and mythology with a penchant for the supernatural. His narratives often traverse timelines, seamlessly blending ancient myths with modern conspiracies. Sanghi employs the supernatural as a catalyst for thrilling plots, where gods and demons intersect with mortal endeavors. The supernatural in his works serves as a bridge between worlds, injecting an element of mystery and intrigue that propels the narrative forward. Sanghi's skill lies in infusing the mythical with a contemporary pulse, creating a space where the ancient and the supernatural converge.

In a comparative analysis, Pattanaik and Sanghi diverge in their treatment of the supernatural within mythological narratives. Pattanaik, with a focus on philosophical exploration, uses the supernatural as a vehicle for deeper introspection and understanding of cultural nuances. Sanghi, on the other hand, employs the supernatural to craft gripping tales that traverse historical epochs, offering readers a thrilling ride through the corridors of time. While Pattanaik seeks to decode the metaphysical aspects of myths, Sanghi weaves a tapestry where the supernatural becomes a dynamic force, propelling characters through intricate plotlines. Despite these differences, both authors share a common thread – a commitment to keeping the flame of mythology burning brightly in the literary landscape. Whether through Pattanaik's scholarly reflections or Sanghi's pulse-pounding thrillers, the supernatural serves as a portal, inviting readers to explore the timeless mysteries embedded in mythological narratives. In the symphony of Pattanaik's profound contemplation and Sanghi's gripping intrigue, the supernatural and mythology blend harmoniously, enriching the literary panorama with tales that resonate across temporal and metaphysical realms.

Exploration of Myth as a bridge connecting to Ancient Past to Contemporary Present

Devdutt Pattanaik, the connection between myth and the present is, as he delves into ancient stories and symbols to unravel their relevance in contemporary times. His narratives act as interpretive bridges, providing a contextual understanding of mythic tales and their application in modern life. Pattanaik's exploration of mythology becomes a tool for cultural introspection, offering readers a lens through which to interpret and engage with their own experiences. The direct connection to today lies in his ability to decode ancient wisdom, using myths as a guide for navigating the complexities of morality, identity, and societal norms.

Ashwin Sanghi connecting ancient myths with contemporary conspiracies and mysteries as the supernatural elements act as threads weaving together the fabric of past and present. While Sanghi's stories are anchored in specific historical periods, the themes and moral dilemmas explored are timeless. The indirect connection to today lies in the universal human experiences depicted in his narratives — the struggle for power, the clash of ideologies, and the eternal dance between good and evil.

In a comparative analysis, both authors demonstrate how myth serves as a dynamic bridge between then and now. Pattanaik's direct engagement with myth offers a reflective understanding of cultural continuity, emphasizing the enduring relevance of ancient stories in shaping contemporary perspectives. On the other hand, Sanghi's indirect connection highlights the timeless nature of human struggles and the recurrence of archetypal themes across different eras. Together, Pattanaik and Sanghi contribute to the construction of a narrative bridge that spans the ages, allowing readers to traverse the mythical landscapes of the past while finding echoes of those landscapes in the complexities of the present. Whether through Pattanaik's introspective interpretation or Sanghi's thrilling explorations, the authors showcase the enduring power of myth as a bridge, inviting readers to cross the temporal divide and discover the perennial relevance of ancient stories in today's complex world.

Conclusion:

In conclusion, the comparative exploration of Devdutt Pattanaik and Ashwin Sanghi's treatment of the supernatural within the realms of mythology unveils a rich tapestry of narratives that resonates with both ancient echoes and contemporary reverberations. Each author, in his own right, emerges as a storyteller wielding the forces of gods, demons, and mystical elements to craft compelling tales that transcend temporal boundaries. Devdutt Pattanaik, with his scholarly finesse and narrative prowess, invites readers on a profound journey into the heart of Indian mythology. The supernatural in Pattanaik's works serves not only as a plot device but as a conduit for philosophical exploration and cultural introspection. Through his lens, the divine and the supernatural become avenues for unraveling the complexities of human existence, moral dilemmas, and the intricacies of cultural nuances embedded in mythic narratives.

In contrast, Ashwin Sanghi, a maestro of historical and mythological thrillers, employs the supernatural as a dynamic force that propels characters through intricate plots. Sanghi's narratives transcend time and space, seamlessly blending ancient myths with modern conspiracies. The supernatural in his works becomes a catalyst for gripping tales that traverse historical epochs, offering readers a thrilling ride through the corridors of time. The comparative analysis highlights the distinct approaches of these literary giants to the supernatural-mythology blend. While Pattanaik delves into the metaphysical dimensions, using mythology as a vehicle for deeper philosophical inquiry, Sanghi propels readers through the twists and turns of gripping plots where the supernatural serves as a bridge between worlds. Their works invite readers to traverse mystical landscapes, ponder existential questions, and embrace the enduring magic woven into the fabric of myth and the supernatural. In the symphony of Pattanaik's profound contemplation and Sanghi's gripping intrigue, the conclusion is not an end but an invitation—a call to continue exploring the mythical mysteries that transcend the pages and linger in the collective imagination of readers.

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The theme of partition in Khuswant Singh's novel train to Pakistan

RATHOD SANGEETHA
DEGREE LECTURER IN ENGLISH,
Email: geethanani2491@gmail.com
Telangana Tribal Welfare Residential Degree College for Girls Kothagudem. Dist: Bhadradri kothagudem State: Telangana

Abstract: *The partition of India was the process of dividing the sub-continent along sectarian lines, which took place in 1947 as India gained its independence from British Empire. The northern part predominantly Muslim, became nation of Pakistan and the southern predominantly Hindu became the republic of India, the partition however devastated both India and Pakistan as the process claimed many lives in riots, rapes, murders and looting. The two countries began their independence with ruined economies and lands without an established, experienced system of government, not only this, but also about 15 million people were displaced from their homes. The partition of India was an important event not only in the history of the Indian subcontinent but in world history. Its chief reason was the communal thinking of both Hindus and Muslims; but the circumstances under which it occurred made it one of the saddest events of the history of India. No doubt, the Hindus the Muslims were livings together since long but they failed to inculcate the feelings of the harmony and unity among themselves. The fanatic leaders of both communities played a prominent role in stoking the fire of communalism. The partition was exceptionally brutal and large in scale and unleashed misery and loss of lives and property as millions of refugees fled either Pakistan or India*

Keywords*: theme, partition, train, Pakistan, communalism.*

INTRODUCTION :

KHUSHWANT SIGH AT A GLANCE

Khushwant Singh's name is bound to go down in India literary history as one of the finest historian and novelist, a forthright, political commentator and an out – standing observer and social critic. He is known as one of Indian's distinguished men of letters with an international reputation, besides, being a significant post-colonial writer in English language. He is known for his clear –cut secularism, wit and a deep passion for poetry. His assessment and comparison of social and behavioral traits of people from India and west is full of outstanding wit. In July 2000, he was conferred the "honest man of the year Award by the sulabh international social service organization for his courage and honesty in his brilliant incisive writing at the award ceremony. The then chief minister of Andhra Pradesh described him a "humorous writer and incorrigible believer in human goodness with a devil may-care attitude and a courageous mind"

The Indian External affairs minister said that the secret of khushwant Singh's success lay in his learning and discipline and his belief in the veneer of the superficiality. Khushwant Singh has worldwide readership. He has written for almost all major national and international newspaper in India and abroad. He has also had numerous radio appearances at home and internationally and had an extraordinary career as a writer. His book," A History of Sikhs ", remains of the best, well researched and scholarly works of the Sikhs. He has also written several novels, both fiction and nonfiction, which have been translated into many languages. His novel ' Train to Pakistan 'won him international acclaim and Grove press Award in 1954, he is best –selling author of over 80 English publications. India today described him as 'the capital's best known living monument. Khuswant Singh was awarded the Padma Bhushan in 1974. Ten years later, in an act of courage on June 8, 1984, a day after the attack on the golden temple, he drove to Rashtrapati bhavan and returned the framed citation to the to the president of India, Giani zail singh' also Sikh in protest at the storming of the Golden temple, however in 2007 Indian government awarded Singh an even more prestigious honor, the Padma Vibhushan. In short Khushwant Singh is a man larger than life – lawyer, diplomat, critic, Journalist, novelist, historian, naturalist and a politician, all rolled into one.

THEME OF PARTITION IN TRAIN TO PAKISTAN

Khushwant Singh's novel, Train to Pakistan, brings forth a picture of bestial horrors enacted on the indo Pakistan boarder during the partition days of august 1947. It tells tragic tale of the partition of India and Pakistan and the events that followed, which will be remembered as one of the blackest chapters of human history. Just on the eve of independence, India was partitioned causing a great upheaval in the whole continent. Independence brought in its wake one of the bloodiest carnages in the history of India, the upshot of this, was that twelve million had to flee their home nearly half a million were killed.

Train to Pakistan is a historical novel by writer Khushwant Singh, published in 1956. It recounts the Partition of India in August 1947 through the perspective of Mano Majra, a fictional border village.

Instead of depicting the Partition in terms of only the political events surrounding it, Khushwant Singh digs into a deep local focus, providing a human dimension which brings to the event a sense of reality, horror, and believability.

Train to Pakistan is wonderful novel by KhushwantSingh that that revolves around the partition of India in 1947. The story ends with the heroic and sacrificial rescue of the train headed towards Pakistan by an unknown person.

Mano Majra, the fictional village on the border of Pakistan and India in which the story takes place, is predominantly Muslim and Sikh. Singh shows how they lived in a bubble, surrounded by mobs of Muslims who hate Sikhs and mobs of Sikhs who hate Muslims, while in the village they had always lived together peacefully. Villagers were in the dark about happenings of larger scope than the village outskirts, gaining much of their information through rumor and word of mouth. This made them especially susceptible to outside views. Upon learning that the government was planning to transport Muslims from Mano Majra to Pakistan the next day for their safety, one Muslim said, "What have we to do with Pakistan? We were born here. So were our ancestors. We have lived amongst [Sikhs] as brothers" (126). Juggut Singh, a local Sikh tough, has a Muslim lover Nooran, who leaves for the refugee camp. After the Muslims leave to a refugee camp from where they will eventually go to Pakistan, a group of religious agitators comes to Mano Majra and instills in the local Sikhs a hatred for Muslims and convinces a local gang to attempt mass murder as the Muslims leave on their train to Pakistan. Juggut, knowing Nooran is in one of the rail-cars, acts on instinct and sacrifices his life to save the train.

The harrowing and spine chilling events of 1947 had shaken the faith of the people in the innate human beings. It had driven them into a state of wonder over what man has made of man. To khushwant Singh, this was a period of great disillusionment and crisis of values, a distressing and disintegrating period of his life. The beliefs, he had cherished all his were shattered. Giving vent to his inner struggle and agony, he says: ‘the beliefs, that I had cherished all my life were shattered. I had believed that in the innate goodness of the common man but the division of India had accompanied by the most savage massacres known in the history of the country. He says, I believe that we Indians were peace loving and nonviolent that we were concerned with matters of the spirit while rest of the world was involved in the pursuit of material things. After the experience of autumn 1947, I become an angry middle aged man, who wanted to show his disenchantment with the world …. I decided to try my hand at writing.

The sinister and venomous impact of partition and the indignation it spawned on him has been realistically expressed in scathing attack in Train to Pakistan. Originally entitled Mano Majra. The novel portrays with bold and unrelenting realism the brutal story of political hatred and violence during the turbulent and fateful days that preceded and followed the partition of British India when sprit of communal frenzy and passionate zeal for self expression was fanning and fumbling with the masses. Every citizen was caught up in the holocaust. No one could remain aloof; no one could be trusted to be impartial. It is true that partition touched the whole country and singh attempt in the novel is to see events from the point of view of the people of Mano Majra, a small village which is considered to be the backdrop of this novel. As P.C. CAR writes singh weaves a narrative around life in this village, making a village microcosm representing a larger world’’

Khushwant Singh recreates a tiny village in the Punjabi country side and its people in that fateful summer, when the flood of refugees and the inter-communal bloodletting from Bengal to the North West frontier at last touches them. Many ordinary man and women are bewildered, victimized and torn apart. The most heart-rending passage in the book is when the government makes the decision to transport all the Muslim families from manor mare to Pakistan. The dram struck villagers are over taken by events. The Muslim live with the barest minimum of their meager belongings within then minutes and the non Muslims neighbors do not get a chance to say goodbye. The entire séances is painful at many lives; particularly the poverty in which this people lived, the uncertainty, they were thrown into and the eclipse of peoples humanity. Train to Pakistan is khushwant Singh’s supreme achievement. It is one of the finest realistic novels of post- world war to indo angina fiction. It has a well thought out structure, a well- conceived plot, and absorbing narrative and beautiful portrayed characters. It has many notable features- symbolic framework, meaningful atmosphere and a powerful way of expression and style. Khushwant Singh has accurately depicted the real picture of the adverse effects of partition and the suffering that people were made to experience. Khushwant Singh up held his unique mirror to reflect up on the physical torture and psychological outburst that became the order of the day, when the division of the sub- continent into India and Pakistan. He paints a vivid picture of the separation between Hindu, Muslims and Sikhs in the summer of 1947. The novel in short portrays the issues of independence and partition using it as a mean to explore other issues which can then emerge as the larger picture of the devastation and bloody birth of nations.

CONCLUSION:

"The wounds will take decades to heal. Centuries to overcome the trauma "(Gulzar).Literature gets affected by the historical events and the writer cannot ignore the realty .History can be called the upholder of fast events. History establishes an illuminating bridge between realty and imagination". India. Which was once known as the Golden Bird got portioned in 1947.India is the land of Gods, Saints and seers where people from different religions live together with love and affection but the incident of partition has changed all this values. The partition of the sub-continent in 1947 was not merely the division of land but also the division of feelings, love and unity innocent citizens that got butchered. Kushwant Singh's Train to Pakistan portrays the horrible experience of the partition as millions of people had to leave their ancestral homelands. Truth meets fiction with incredible effect as Singh's Train to Pakistan recounts stories that he his family and companies have themselves experienced .In this book, Kushwant Singh describes the realistic tale of partition of India and Pakistan .The purpose behind Singh's writing this book was to highlight the holocaust which happen during the petition on India and Pakistan border which affect the psyche of people till today. The partition 1947 has compelled the Hindus to leave Pakistan and Muslim to leave India after reading Singh's Train to Pakistan, one can himself create a moving picture before the eyes, what had happened during the time or partition.

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Constructing Self through Storytelling: A Study of Paul Auster's *Man in the Dark*

Dr. Clemencia Mary A.
Assistant Professor in English
Providence College for Women (Autonomous)
52 Mount Pleasant, Coonoor, The Nilgiris - 643 102, TamilNadu
Email:clemencia.arputharaj@gmail.com

Abstract : *Postmodernism as a theoretical aspect is expressed across a various range of conceptual communication and involving grand narratives into unjudgeable language games. In the contemporary period, there is no more existence of transcendent space to offer a detailed analysis of this culture. There is only unsettling from within language games, parody, fragmentation and micro politics. The postmodernism infraction of literary, social and sexual standards in terms of paranoia, profanity, pastiche, defamiliarisation and parody were used by some of the noteworthy postmodernist writers like Margaret Atwood, John Barth, Saul Bellow, Don Richard DeLillo, Paul Auster etc. Paul Auster is an American poet, novelist, dramatist, essayist, screenwriter, translator, memoirist and film maker. Auster in his fiction adopts a postmodern narrative mode which he considers a liberating aspect and an agency for survival. His characters often involve an answer to facts of the postmodern world through their actions and relationships. The research article attempts to analyse the work of Paul Auster's Man in the Dark.*

Man in the Dark is perused to bring Auster's use of postmodern narrative to depict the protagonist August Brill's search for self. August Brill the narrator of the novel tries to create a sense of self going through a destructive and torturous experiences. His act of storytelling becomes his mode for healing. The characters live in a house alienated from the outside world where the act of storytelling provides solace. Also Auster using storytelling technique through Brill is able to convey the Civil War in America as well as 9/11 incident.

Keywords: *postmodernism, storytelling, self.*

Postmodernism is a movement started in the late Twentieth century. It has manifested in various disciplines like art, architecture, literature, fashion and technology. Postmodernism can be analogous with the power shifts in the society, devalue of after Second World War and destructive attack of consumer capitalism. Postmodernism can be understood as a reaction against the values and ideas of modernism. As a theoretical aspect, postmodernism shifts in the fields of literature, art and culture during 1960's and after the second half of the twentieth century postmodern literature started in England, America, Latin America and other European countries.

The postmodernism infraction of literary, social and sexual standards in terms of paranoia, profanity, pastiche, defamiliarisation and parody were used by some of the noteworthy postmodernists writers like Margaret Atwood, John Barth, Saul Bellow, Don Richard DeLillo, John Hawkes, Vladimir Nabokov, Kurt Vonnegut, Sam Shepard, Martin Amis and Paul Auster.

Paul Auster is an American poet, novelist, dramatist, essayist, screenwriter, translator, memoirist and film maker. When Auster was six years old he used to skip few grades because his writing and reading capability was ahead of his grades. He started to write prose and poetry when he was pursuing his college. He did few translation of writers like Mallarme' and Jean-Paul Sartre. While studying in college he participated in campus opposition against the Vietnam War. Some of his famous works are *Unearth* (1974), *Wall Writing* (1976), *Squeeze Play* (1984), *The New York Trilogy*, *In the Country of Last Things* (1987), *The Book of Illusion* (2002), *The Brooklyn Follies* (2005), *Travels in the Scriptorium* (2007) and *Man in the Dark* (2008). According to Dennis Barone, Auster is great because he "has synthesized interrogation of postmodern subjectivities, explications of pre modern moral causality, and a sufficient realism" (5- 6).

August Brill the narrator of the novel tries to create a sense of self through the act of storytelling becomes his mode for healing. The revisiting thought of past conjures in Brill's life. His wife's thoughts haunt him, "I am alone in the dark, turning the world around in my head as I struggle through Bout of insomnia, another white night in the great American wilderness" (1) here in these lines Auster creates two different worlds through narration. In one world August Brill struggles from insomnia and in another world it refers to the white night of the great American wilderness contrasted with the character surrounded with darkness (his illness and personal loss). He was deeply disturbed. Subjected to insomnia makes him to precipitate for manipulating memory and initiates him to write a fictional story:

> The night is still young, and as I lie here in bed looking up into the darkness, a darkness so black that the ceiling is invisible, I begin to remember the story I started last night. That's what I do when sleep refuses to come. I lie in bed and tell myself stories. They might not add up to much, but as long as I'm inside them, they prevent me from thinking about the things I would prefer to forget. (2)

Brill makes his fictional character Owen Brick a victim. The readers naturally involve into the story and it also influences their memory preoccupying them into the imaginary world. Brill begins his story in a definite way:

> I put him in a hole. That felt like a good start, a promising way to get things going. Put a sleeping man in a hole, and then see what happens when he wakes up and tries to crawl out. I'm talking about a deep hole in the ground, nine or ten feet deep, dug in such a way as to form a perfect circle, with sheer inner walls of dense, tightly packed earth, so hard that the surfaces have the texture of baked clay, perhaps even glass. In other words, the man in the hole will be unable to extricate himself from the hole once he opens his eyes. (2-3)

Owen Brick wakes up in alternative America. He hears:

> . . . machine guns, exploding grenades, and under it all, no doubt miles away, a dull chorus of howling human voices. This is war, he realizes, and he is a soldier in that war, but with no weapon at his disposal, no way to defend himself against attack, and for the first time since waking up in the hole, he is well and truly afraid. (5)

Owen Brick passes his days with confusion. He is helpless and unable to get any proper answer and starts to suffer physically as well as mentally. Finally, he encounters Serge Tobak, a sergeant. Tobak says, "You're fighting a war"(8). Brick was puzzles and queries him "What war? Does that mean we're in Iraq" (8). Tobak and Brick involves in conversation:
Iraq? Who cares about Iraq?
America's fighting a war in Iraq. Everyone knows that.

. . . This is America, and America is fighting America.
. . .
Civil war, Brick. Don't you know anything? This is the fourth year. (8)
Brill creates a setting of a war in his story and it is revealed through Tobak that it is Brick who is going to end the war. The story continues as secret agents send their soldiers to the real world to assassinate Brill who is responsible for the war. To the readers astonishment a question may arise, why did Brill create such a story? The answer lies in August Brill's suffering from personal loss and spending sleepless nights. As he cannot withstand the pains anymore so he decides to give up his life which is reflected through his story. He indirectly conveys to the readers that he wishes to die. He also desires to be killed by his own character Brick. Auster has employed the technique of doubling. Doubling refers to two or more characters counterpart each other in a personality or in an action. Doubling shows deep anxieties explored in a character. It continues to exist as a popular technique for writers to show a character's internal conflict. Here, Auster uses doubling to show the inner struggle of Brill.

Meantime August Brill continues his story. Brick comes to know that a civil war is ongoing in America and wonders, "what the fighting is about and who is fighting whom. Is it North against South again? Whatever ever caused the war" (23) and comes to a conclusion stating, "whatever issues or ideas happen to be at stake, none of it makes any senses" (23) to his speculation, "he is trapped in a dream, that in spite of physical evidence around him" (23). The novel Man in the Dark does not portray Owen Brick imagining a destructive America as a foreign rather Brick in reality visits the place unfortunately crossing between the real and the imaginary.

Auster trickily conveys his idea as he does not introduce 9/11 incident explicitly but conveys implicitly through Brick who lands in alternative America. Auster portrays the changes, movements, events taking place in America but poor Brick is unaware of the happenings. The incidents and changes he hears and encounters come as a haunting thought while travelling with Virginia. Brick is forcefully put in a chaotic situation and struggle hard. Brick suffers in the alternative world whereas Brill suffers from his haunting thoughts. Both the characters of Auster's are pushed into the state of confusion and conflict in life. It is Brill who creates an alternative America so his character Brick cannot escape from war until and unless he finds Brill in the real world and kills him.

Auster includes another focus in his work *Man in the Dark*. Owen Brick being the secessionist recruits had to travel to the real world and kill August Brill because he is the head. Killing the leader stops the war automatically. Now, Brick is given a task to do in order to stop the war. He has to kill Brill. However, at the end he makes a resolution to kill himself believing that he is the principal character of the story so once he is removed, the story will come to an end and the war will vanish.

Auster introduces Titus Small and Katya in the second part. Titus Small is the lover of Katya. He is kidnapped and beheaded in Iraq. Katya just like grandfather spends her night sleepless. August Brill spends his sleepless night by telling stories to himself whereas Katya sits and broods over by watching the video footage of her lover. The video footage contains Titus's murdering.

As the novel reaching culmination part, Brill brings a twist in his fictional story. He decides to kill, "the protagonist of tonight's story" (102). Brill kills his fictitious story before his imagination immerses him to the dark inkwell. He tells, "My subject tonight is war, . . . Brick behind me, make sure that he gets a decent burial, and then come up with another story . . . . Giordano Bruno and the theory of infinite worlds. Provocative stuffs, . . . other stones to be unearthed as well" (118 - 119). Brill concludes his story. He decides to spend his time with his daughter and granddaughter. Auster uses stream of consciousness in order to have a different effect to his storytelling, which enhances the effect of the climax. Brill ponders, "How fast it goes. Yesterday a child, today an old man, and from then until now, how many beats of the heart, how many breaths, how many words spoken and heard?" (177). Brill understands the reality that life goes on amidst struggle, happiness and sorrow.

Brill's trauma changes his life. In order to escape haunting thoughts of his wife he creates story and tells to himself. Story telling empowers him to reclaim his identity and rewrite the narrative of his life. Through story telling Brill is able to discover his self. He gets reminded that he is a book critic and moreover he is a former Pulitzer Prize winning writer. So starts to engage himself to write literary works. He also suggests his granddaughter to write literary works along with him. He plans for a summer camp to help his daughter and granddaughter have a change in their life. Brill resembles as a redeemer in Katiya's life.

Man in the Dark emphasizes readers that there are possible ways to live a happy and comfortable life. One should come out off trauma and live a life instead of brooding about the past incidents. Auster also insists the readers to be optimistic just like his character Brill who gets transformed and starts a new life by involving himself in writing.

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Decoding the life of a Queer: An Analysis of *Me Hijra Me Laxmi* by Laxminarayan Tripathi

Lizmol Joseph
Assistant Professor, Department of English, Assumption Autonomous College, Changanacherry, MG University, Kottayam, Kerala,

Email - lizamaryjose@gmail.com.

Abstract: The goal of this study is to unravel the gender troubles faced by a queer Laxmi Narain Tripathy as narrated in his autobiographical work *me Hijra me Laxmi*. The paper would provide an analysis of the autobiography within the premise of the theory- Queer Studies. The identity crisis and other difficulties faced by the transgender human Laxmi is deeply analysed in this study. Laxmi, a female trapped in a male body, embraces the identity of a woman and hopes to realize his/her true self. In Judith Butler's opinion we need not consider gender to be passively determined but "it is a process of constructing ourselves". Concepts from select transgender theorists are used to analyse the novel from a transgender perspective. Narain's transformation to Laxmi is narrated as a passage into another world. Laxmi has to endure the pain and suffer the trauma of identity crisis. The marginalisation of queers or transgenders is deeply narrated by Laxmi.

Keywords: Transgenders, marginalisation, Identity crisis, Queer studies, Transformation.

"The sweet memories of childhood enrapture everyone. But not me. I'm different because I did not have a happy childhood"(1 Tripathy). Thus begins the autobiography of a hijra, Laxmi Narayan Tripathy. He discusses in his autobiography about an incident in which he narrates about his troubles to Mr Ashok Row Kavi: "I am effeminate and people tease me. I am also sexually attracted to men. Why am I not like everyone else? Am I abnormal?". Laxmi , a female trapped in a male body, embraces the identity of a woman and hopes to realize his/her true self. In Judith Butler's opinion "woman itself is a term in process a becoming, a constructing that cannot rightfully be said to originate or to end. As an ongoing discursive practice it is open to intervention and resignification"(Butler 45). Body is considered as a locus of dialectical process and in this process, what has been imprinted on the flesh gets a new set of historical interpretation.

With respect to their studies on transgender, gender theorists such as Suzanne Kessler and Wendy McKenna often entertain the thought and possibility of a theoretical and practical elimination of binary gender through the conceptualisation of transgender. "Transgender is a complicated and contested term whose meaning has considerable cultural, historical, and situational specificity, not just over many years and lives but also within a single day and life"(353). In contrast to academic developments in the 1970s in which gender was then understood as socially defined and culturally varied, they see transgender as a theoretical challenge to the social construction of gender, that such possibilities to be arisen from this challenge are limitless.

There was a sense of gender trouble in Laxmi right from his school days as is evident in the sentence: “ I was a male. Then what was it about my body that attracted other men to me?” Laxmi was always attracted to his male friends than females. He narrates his love affair with Ravi: “ If I did not meet Ravi atleast once during the day, I would be uneasy, and the unease would be reflected in my diary entries”(Tripathy 19).He says about the conservative Indian society who wouldn’t accept gay affairs and such marriages. He wanted to marry Ravi but he knew it was not practically possible. While he pondered over the notion of sexuality he stood perplexed as he couldn’t make out whether inwardly he was a girl or a boy . Though he had the physique of a man his inner self always celebrated femininity. He felt like ending his life.

In the essay “Transgender Liberation - A Movement Whose Time Has Come” from the book *The Transgender Studies Reader* ,Leslie Feinberg is quoted as a person who redefined the term transgender:

“Previously, “transgender” had referred most frequently to biological males who lived socially as women, but who did not undergo genital modification surgery. In Feinberg’s redefinition, the term came to refer to a “pangender” movement of oppressed minorities—transsexuals, butch lesbians, drag queens, cross-dressers, and others—who all were called to make common revolutionary cause with one another in the name of social justice.”(Stryker, Susan and Stephen Whittle 205)

Yet another instance from the book quotes Judith Butler in elaborating on transgenders: “While it argues that all gender is performative—that “man” and “woman” are not expressions of prior internal essences but constituted, to paraphrase Butler, through the repetition of culturally intelligible stylized acts—Gender Trouble presents the transgendered subject as the concrete example that “brings into relief ” this performativity of gender .”(262)

In her autobiography *The Truth About Me: A Hijra Life Story* , A Revathy too speaks about the same gender trouble that she felt as a child: Revathi was born and brought up by her parents in the name of Doraiswamy but with the feminine qualities. As he was the youngest son in the family, he was pampered by his parents. In his early school days, Doraiswamy showed more interest to play games which were only female oriented games and events: “I played only girls’ games. I loved to sweep the frontyard clean and draw the kolam every morning”(3). And surprisingly, one day, after returning from the school, he disguised himself as a girl by wearing his sister’s skirt around his hip. At the age of ten, Doraiswamy started to face more gender troubles. However, his family approached and treated him in a different way. But his changed-attitude was sensed by his neighbours. Later, majority of the village people and some of his friends teased him by calling out Number Nine and all other female things. However, he ignored all such comments as he knew he was indeed like that.

In the autobiography, Laxmi opens about how he was introduced to the gay community of Ashok Row Kavi and why he couldn’t identify with them. For Laxmi , they lived their lives and went about their business as heterosexuals do and that bored him. He loved to be a drag queen. Through Ashok’s circle of friends he got to know a couple of hijras. One of them was Sweety, a bar dancer and she introduced Laxmi to the world of bar dancing. Laxmi made money from dancing at the bars but she forbade anyone to touch her body-“ I have always considered myself to be monarch of my own body”. For his family members he was a model

Coordinator who studied at Mithibai College. He specifies that he was from a high caste Brahman family from Uttarpradesh where girls don't even go out to work.

Laxmi narrates how he met Shabina who was a hijra. "She was dressed in a sari and she looked every bit a woman from head to toe. Everything about her -her speech, her gait, her mannerisms and her voice was so feminine"(38). Laxmi was able to learn everything about hijras from Shabina. She acquainted Laxmi about their history, their traditions, their lifestyle and their sources of income. Laxmi says that he had suffocated all along and had been a victim of wrongful assumptions of the world until he learnt the truths about hijras from Shabina. It was then that Laxmi decided to become a hijra. Her christening ceremony as a chela took place in the year 1998. In the ceremony she was given jogjanam sarees and was crowned with the community dupatta.He speaks about how he met Lataguru, guru of Shabina. Lataguru could'nt believe that a boy from a good family like Laxmi who was college educated and stylish should opt to be a hijra.

While there were protests against Section 377 of IPC as it outlawed homosexuality a meeting News channel wanted Laxmi's byte as a hijra. She thus appeared on tv and her family members got to know that he had become a hijra. After the incident as he entered his house his mother began to beat her breasts and wail loudly as if there was death in the family. His mother said " No one in fourteen generations has done such a thing in our family. We are a noble, high caste Brahman family". His parents stopped talking to him from then. But Laxmi drowned his sorrow by starting to work for the hijra community. On a similar plane we have A Revathi's autobiographical sketch where she speaks about how she was received at her own household after transforming into a hijra .For instance, when Revathi returned to her parents, she was insulted as well as neglected by her kith and kins. At this situation, Revathi was helpless and miserably failed to defend herself in the family. Worse still, she could not bear the torture and mental agony exercised by her brothers. So, there is no other go and determined herself strongly to get back to her guru's place. More than that, she was mentally prepared to join with hijras community through the protocol of nirvana.

In the book *Criminal Love: Queer Theory, Culture And Politics in India* R Raj Rao refers to Ruth Vanitha and Hoshang Merchant as having introduced a term called 'shame culture' which impacts homosexuality: "homosexuality, if made public 'shames' not just the homosexual himself but the entire extended family comprising parents, children, siblings and relatives…homophobia may loosely be defined as prejudicial fear and hatred of homosexuality, homosexual people and homosexual acts"(p 75-76)

In the autobiography Laxmi speaks about Subhadra a seniormost chela. Subhadra went for sex work one day but never returned. Laxmi rushed back from Hyderabad and filed a complaint at the police station. He says about the ill treatment they confronted at the station and the biased attitude of the officers towards hijras. But finally the police conducted a thorough inquiry but Subhadra was untraceable. Finally Laxmi got a call from the station which informed her about the death of Subhadra. As per the advice of her lawyer she did not claim the body. The hijras were distraught and Laxmi told them not to weep. Subhadra's death had opened their eyes to the dangers of being a hijra. In the book Queer Theory, Culture And Politics in India, Raj Rao speaks about an independent study conducted by an NGO called SPACE(Society for People's Awareness, Care and Empowerment) after December 2013 judgement:

> "They discovered that within the first three months of the judgement a gay man and three transgender people were brutally murdered in different parts of the country because of their

> sexual orientation. Respondents interviewed by SPACE pointed out that they faced homophobic violence both inside and outside home and they were apprehensive about reporting the matter to the police. They felt that the police would arrest them rather than the perpetrators of the violence since it was they who were supposed to be 'criminals' "(131)

" The cops would arrive at the most unearthly hour and randomly pick anyone of us up for questioning at the police station"- Laxmi thought hijras' fight with the world seemed to be pointless but still she was not ready to give up the fight as the world would be too happy to. This was a big blow to the hijras. A hijra's death or murder did not seem to matter to anyone but it mattered to Laxmi and her community of hijras. R Raj Rao speaks about a similar situation in his book:

> What Parliament needs to realise is that section 377 of the IPC is lethal. If a gay man(in this case or any other belonging to the LGBTQ)is murdered because of his sexuality the Section even makes it possible for a good lawyer to free the murderer on the ground that the murder was committed inorder to 'cleanse' the society and was motivated by the highest moral values.(152)

Laxmi in her concluding chapter speaks about how he was accepted by his family and he says: " This is rare in a culture where deviant sexuality is enough for parents to disown their offspring."(169) He openly puts it that while he was young he had an inferiority complex and now he is having a superiority complex as he had travelled all over the world as a hijra and being regarded as a celebrity by everyone and he says that he does not regret his decision to become a hijra. He speaks authoritatively about hijras, their culture as a practicing hijra with hands-down experience. " A hijra is a person who has left mainstream society, comprising men and women and joined a community of hijras. But the hijra community is not a monolith. Its history and culture varies from state to state"(171).Laxmi continues theorising about hijras in very simple language: " The word hijra is a social and not a biological construct. One cannot be born a hijra , though one can be born a hermaphrodite."(173)He says that hijras virtually have a parallel social structure: they have gharanas, its chief-nayak, guru, panchayaths etc.

The marginalisation and the social stigma faced by transgenders are honestly narrated by Laxmi by portraying her own life and its complexities. It is high time that we change our outlook towards a community of humans who may lead a better life if the so called 'normal heterosexual human beings' show a little mercy upon them. As Judith Butler refers to Monique Wittig in the book *Gender Trouble* "Wittig understands sex to be discursively produced and circulated by a system of significations oppressive to women, gays and lesbians. As a result, the political task she formulates is to overthrow the entire discourse on sex…she calls for a radical reorganisation of the description of bodies and sexualities without recourse to sex"(154). Let us live in harmony with the queers and transgenders and in solidarity with their queer identities.

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Women Characterization in the works of Mamang Dai

Lavina Keswani
Dr. Manjushree Sar Deshpande
Research Scholar, (M.A English, NET) R.S Mundle Dharmpeth Arts commerce college.
Head of Department, English , R.S Mundle Dharmpeth Arts and and commerce college.

Email - keswanilaveena@gmail.com

Abstract: *Throughout Indian history that has been written down, the status of women has undergone numerous transformations. Early in India's ancient period, particularly in the Indo-Aryan-speaking regions, their social status began to decline, and well into the country's early modern era, their subjugation was still reified. India has been a patriarchal and superstitious society and thus tribal women faced even more difficult problems than other women who belong to affluent families. Tribal women have been always subjected to oppression and discrimination. Mamang Dai has been a strong tribal voice, that brings forth North-eastern culture's tradition, tribal culture, and nativity. Dai highlights strong and independent women characters by portraying their tribal culture in limelight. Dai portrays her tribal women characters as unique and determined. They can think for themselves and make strong decisions even though subjugated by male dominance. The objective of this paper is to bring into focus strong women characters in Mamang Dai's work, who have faced brutality, segregation, exploitation, and male chauvinism in all walks of life but are still able to get through all the difficult circumstances through their will, courage, and determination.*

Keywords: *Mamang Dai, Adi tribe voice, tradition, subjugation, women, strength.*

INTRODUCTION:

Mamang Dai is an Indian poet, novelist, and journalist based in Itanagar, Arunachal Pradesh. She received the Sahitya Academy award in 2017 for her novel the Black Hill.In North-east culture, Mamang Dai is emerging as a powerful voice. By sharing her wisdom and practices, Dai hopes to deepen her roots by portraying her culture and tradition. She thoroughly describes the roles of women in her society and documents all of the tribal cultures. Women experience identity and community problems on a regular basis, but the situation is exacerbated by north-eastern conflicts. They are exposed to things that permanently alter their identities, such as sexual politics and the masculine gaze.

> "Remember, because nothing is ended but it is changed"
> **— Mamang Dai, Legends of Pensam**

Hypotheses:

1. Dai's women characters have a lot of resilience.
2. Dai's women characters are strong decision-makers.
3. Dai's women characters are Independent.

Objective:

1. To study women's characters in Mamang Dai fiction.
2. To evaluate women's psychological aspects in Mamang Dai's fiction.
3. To analyse women's life in fictional works of Mamang Dai.
4. To identify how culture helps in development of women psychology in Mamang Dai.

Research Methodology:

The research methodology used in the current paper is discourse method, interpretation method and analytical method. A study to analyse the psychological aspects of women in fictional works of Mamang Dai has been done. After that, the five main texts have been critically analysed, every conclusion is supported by data from the original texts as well as important interpretation from the secondary ones. A recommendation for the future has been included in the conclusion.

Literature Review:

Since writers utilize characterization to develop relevant and useful characters, it is a crucial component of literature. However, compelling and outstanding stories are a direct result of strong characterization. The literary device of characterization serves as the foundation for all the other components of a short tale. After discussing a character's actions, the author will go on to provide an insightful analysis of this character by utilizing more literary devices. Once a character is presented, the readers are allowed to discover more about him or her by exploring their beliefs, interactions with other characters, and way of thinking. The focus has alternated between "dominance of plot over characters and vice versa" throughout literary history (Burroway and Weinberg 23).

Men and women in the Northeastern tribal tribes have designated spaces that correspond with their respective roles. It is evident that women play a more dominating role than men in the socioeconomic structure of the majority of tribal communities in the Northeast, and their status is significantly greater than women in different regions of the nation. In addition to spending time in the kitchen making meals and doing household chores like cleaning and washing clothes and utensils, tending to small children, weaving, and other duties, women also perform jobs that are typically performed by men, such as felling wood, gathering roots and vegetables, and cultivating. Therefore, it would appear that the traditional dichotomy of male/public and female/private does not apply to the indigenous cultures in the Northeast.

Everywhere, the division between male and female is a fundamental component of social organization. Compared to modern western civilizations, most societies have significantly more complex and nuanced expectations of behavior appropriate for distinct sexes. All societies recognize marriage and kinship relationships. It imposes normative standards on the roles of parents and kids, spouses and wives, and frequently several other interactions within extended families. Both the reality of difference and the acceptance of it are universal. (Barry 19)

Nonetheless, in most Northeastern tribal societies, women's access to knowledge is restricted, and men control the majority of decisions regarding both public and private matters. In her study Tribal Women of Arunachal Pradesh, Veeranki Maheswara Rao discovered that while women were valued members of society, most Arunachal Pradesh groups did not include them in the decision-making process.

She writes, ... decisions related to major issues are taken by husbands ... Men dominated in making decisions on number of children to bear, arranging children's marriage, taking/giving loans, sale/purchase of animals, settlement of disputes, social visits, and to some extent voting. (Rao 2003, 128)

But in her literature, Mamang Dai portrays women, who are uneducated, and illiterate but are wise and resilient in difficult times. Characters like Gimur,Pinyar,Nenam,Adna, and Mareb can showcase their strong decision-making power during rough patches. For these ladies from the Northeast, moving to the city is an empowering factor because it allows them to escape the local patriarchal norms, customary family expectations, a troubled marriage, "routine violence" against women as a result of unemployment and militarism, and so forth. As we see,in 'Stupid Cupid',north-eastern migrants economic liberalization. As urbanization took hold and residents of the Northeast began migrating to major cities.For the majority of Northeastern women, places like Delhi, Hyderabad, Banglore, Mumbai, etc. are ideal since they offer opportunities for employment and education. These areas also demand labor from the Northeast,

These cities are perceived or imagined by Northeasterners as places very different from their own hometowns and villages which is "predatory and caste-ridden as opposed to collective and egalitarian." (Mcduie-ra 2012, 19)

Play in these cultures merely creates a fictitious sensation of involvement. In those areas, structures of inequality still exist, and women are not given equal access to public spaces. Being in public does not provide women with possibilities for personal growth; rather, it is done for the benefit of their family. Women are pushed to believe that the private home is their proper domain, which puts pressure on their ability to move freely in society.

Mamang Dai through her fiction helps us get a glimpse over women's psychological situation, where they are left mid-way and are at a crossroads to make decisions over to stay or move on**.** **As she says in one of her books "the legends of pensam', "Our language's word pensam means 'in-between,'" she writes**. It alludes to the center or the central ground. Pensam serves as both the transitional stage between the old and modern ways of living for the Adi in the story as well as the middle ground between myth and truth that governs their lives.

The Adis are one of the main tribes in Arunachal Pradesh, and Mamang Dai gives her readers a glimpse into their culture, traditions, and belief systems in The Legends of Pensam. Pensam is a book of interconnected stories. The stories are divided into four sections 'diaries of the world', 'song of the rhapsodist', 'daughters of the village', and a matter of time are narrated significant figure in the narrative, Hoxo, who tells Mona, the owner of a glossy

magazine who travels to the hills of Arunachal Pradesh to gather stories for her publication about The Adi's tribe have savage rites, customs, and beliefs. It is notable because they believed in spirits, both good and bad, and performed rites and rituals to appease them. The tribal members think that if the spirits become enraged, awful things like murder or death may happen. The spirits may manifest in many ways, and their appearances inspire awe and fear among the tribe members.

The Tale of Pinyar

The widow Pinyar's story serves as an illustration of how to believe in the afterlife. She continued to live alone even though her spouse had left her widowed. One day when she was out in the field, her house caught fire. Adi had a custom in which the owner of a house on fire was banished for breaking certain taboos. During that period, no one is allowed to eat with her for fear of inciting the tiger spirit, which is responsible for starting fires. Therefore, only women are to accountable for their poor luck in Adi's patriarchal and superstitious society. She believes in all kinds of spirits since she has such a solitary life, and it is she who says **“There is a bad spirit lurking in the *si-ye* that makes men go mad” (Dai,2006,pg 29)?**
The same idea leads her to believe that her son Kamur, who killed his daughter and son in a fit of irrational rage, is haunted by ghosts. She desired to summon the most powerful priests from the other side of the river to expel the spirits that had an impact on her son.
“They understood that it was a nebulous zone that divided the worlds of spirits and men-in fact, at one time men and spirits had been brothers. They knew that what was real could well be an illusion and that reality might only be the context that people gave to a moment” (pg,31)

Thus, going through such deep pain and isolation, she still wanted to save her son, who actually only come twice to meet her after Orka,

Pinyar’s husband took him away. Kamur went into his own life with his wife and son. Yet for years the fearless and outspoken Pinyar would break down and talk of the squirming, naked child who wailed in her arms.

In such a society, marginalized women remain voiceless, we can see Pinar excruciating ger pain in the words, **“It seems my destiny is cursed.” (Dai ,2006,pg 28)**

Dai’s women’s characterization is always courageous and always chooses to boldly face tough situations. Hoxo also explains that women are typically blamed in tribal society for any form of catastrophe that affects the family or home.

Tale of Nenam

In the next chapter called ‘Daughters of the village’, of ‘Legend of Pensam’, Hoxo narrates a story, where a woman is shown practical and a strong decision maker is the tale of young Nenem, whose exceptional beauty draws the notice of a British officer and a fairy tale starts between them, is one of the collection's most memorable tales. Mamang portrays the passionate union that results from fervent love as it gradually consumes the lovers. However, the relationship comes to a sad end when David gets transferred somewhere else and Nenem is unwilling to uproot and follow him. The pain of parting is addressed sensitively. Neem adopts a philosophical stance and continues living.

“No one dies of love. I loved him, and now I am enough on my own.”(Dai,2006,pg 109)

Nenem accepts her fate, marries Kao, and has a girl. As time goes on, she grows happier with the things she has, including a daughter, husband, and home. After a few years, floods decimate their village, forcing them to relocate. Since she could not endure the pain at that time, eventually she collapses and dies.

Story of Omum:

In the section ,'a diary of the world', in Legend of Pensam, there is a story of a widow, Omum. In the strange case of Kalen, the hunter, Kalen was suffering from malaria. One day while going for hunting, and there was a sudden bolt of mysterious thunder while everyone coming back. Kalen was found slumped on a tree. His body was found ripped almost to shreds by the bullet that has exploded inside him. It was a cursed afternoon and they all came back, exhausted from malevolent spirits. Kalen widow, Onum lived with parents. She had two children and she was in her mid-twenties. Wearing her hair tied back in colorful band, exuberating high-spirit and resilience.

"She fetched water,lit the evening fire,fed the pigs and chicken and carried on with her life without stopping to pine or utter recriminations."(Dai,pg 15,Legend of Pensam)

Tale of Sirsiri

Sirsiri, a narrow,swarthy face women,mentioned in the section matter of time. Fifteen-years ago Sirsiri had come to Duyang as a bride. People said that she has sung songs on the radio. She was a great singer and her would-be father-in-law, old man Pastor was spreading happy news everywhere that Sirsiri, was to become their daughter-in-law. Her competitive and ambitious nature is shown when she is unsatisfied with her husband.Her being lonely and not able to the life on her own terms,afftects her mental health significantly.

Character of Gimur

Mamang Dai skillfully weaves the love tale of Gimur and Kanjisha into this historical account. Father Krick's entry into the Arunachal Pradesh village of Mebo as a representative of the Southern Tibet Mission was met with bitter opposition from the locals, who were adamant about refusing to let the white men in who intended to build a trading post in the Mebo hills. Gimur, a seventeen-year-old resident of Mebo village, shared the villagers' intense animosity. Gimur's animosity for the British originated from their irreverent travels across the nation, attempting to trespass into other people's territories.

Kajinsha, a resident of a village in the Mishmee Hills, arrived in Abor while pursuing the white men and had the opportunity to

meeting with Gimur. Gimur's life unexpectedly took a different turn when she found herself drawn to Kajinsha, a member of a distinct clan and tongue. She was aware that she would have to move to his village if they got married. Arunachal Pradesh was home to 26 major tribes, including the Mishmee and Abor. Abor communities were safe havens where customs were revered as unbreakable laws.
Gimur knew how her family would respond to her marriage to Kajinsha, whose family and village were unknown in Mebo. She realized that leaving was her only remaining option.

Together, Gimur and Kajinsha made Black Hill, near the Dau River, their new home. This area is on the boundary with Tibet's Zayul Valley. Mamang Dai's

Women's roles vary widely; they can be traditional, naive, obedient, and industrious, or they can be forceful, sophisticated, and battling to accept modernity. Gimur, however, defies easy classification because she is both fiercely loyal to her culture and self-assured enough to defy her tribe's customs and journey with Kajinsha into an unknown world. Gimur is not a "new woman," according to Dai; rather, they are tribal women who defend their families and clans. These ladies are capable of defying convention as well.

Fiction and history become intricately entwined when Gimur chooses to return to Mebo following a horrific altercation with Kajinsha. Gimur was a self-respecting woman.She couldn't tolerate her husband's intoxicated relationship with another Sommeu village woman, even though he was forced into it. On her return trip to Mebo, she was walking through the hills when she noticed Krick and two Mishmee men going past. She thought the priest was following her like a ghost (Black Hill 156). Returning to Mebo, she adapted to her new life, facing the death of her infant while crossing a raging stream and her divorce from her spouse. Still, history caught up with her earlier than anticipated.

She was informed that a White man had approached Mebo and inquired about the best route to Tibet. The statement, "he was a padre and carries a tapung (flute)," (172), served as proof. powerful enough for Gimur to recognize that it was Father Krick. For Gimur, Father Krick was a reincarnation from the past when he arrived at Mebo.

The priest's arrival in Mebo marked the end of a plot he had been quietly mulling over to find a way to reach Tibet without going through Mishmee land. Despite the fact that the expedition had put him to the test, he was not prepared to abandon the Tibet Mission so quickly. He was aware that the Abor tribe's overwhelmingly warm welcome to him was because he was a priest, a man of God, not a soldier carrying a rifle. Since the British took over Assam, the locals have been suspicious of any guy with white skin and a prominent nose because they believe these men will bring conflict and imprisonment.

Adna and Mareb

But in her fiction, Mamang Dai also stands in for another kind of tribal Northeast woman: those who are too autonomous and driven to adhere to such strict norms. They make their path and break free from these cultural conventions. Adna, the protagonist of Mamang Dai's book Stupid Cupid, is a woman who relocates to New Delhi from her hometown of Itanagar.

She turns the South Delhi home she inherits into a guest house where singles and couples can stay "for an afternoon, a day, and sometimes for months." Adna admires Delhi's liberal ways and holds liberal views on life. Adna claims she enjoyed every aspect of Delhi, despite the village elders warning her and other young people about its cruelty and advising them to get married and live down in the area.

“I had set up an agent. For want of a better name, let’s call it a love agency, to provide a decent meeting place where men and women, lovers and friends, could rendezvous without too much sweat… People only want to be alone together. They need time to meet and talk. They want to find themselves through a moment of love.”(Dai,2017,pg 46)

Modern women on the fringes accept exile and migration in Stupid Cupid Dai's novel as a means of liberation from the restrictive rural society's framework. The main story is around protagonist Adna's journey from a small Northeastern town as a journey from the horrors of patriarchal oppression and the ever-watchful and inquisitive village elders to the independence of affluence and anonymity, ultimately portraying Adna as a self-made human being who assumes responsibility for her well-being. Adna, the main character, has educated herself by enrolling in hotel management courses in Kolkata and Guwahati. With the unexpected purchase of her aunt's bungalow, Adna, a newly empowered tribal woman in Delhi, assumes responsibility for her own life and well-being and launches her own company.

Delhi becomes the city of Adna's dreams. Delhi gave whatever independence she craved, but being a woman and also from the northeast she has to suffer a lot. The experience of migration by women in the North-eastern United States can be better understood through fiction. Mamang Dai points out that the migrant woman's aspirations are vastly different from the expectations of her community. the city and its consequences.

Adna and Mareb both feel let down by their romantic connections in Stupid Cupid. On the other hand, when Adna and Mareb initially got there, they fell in love with Delhi. The temptation of Delhi's non-tribal boys is too strong for either of them to resist. They seem to be liberal women with modern lifestyles, in Mamang Dai's opinion. Mareb and Adna break the law because they think that love knows no boundaries of race, religion, or culture. They are discouraged from joining together across cultures by deeply rooted beliefs. Marriages amongst people from the same class, social group, or ethnicity are frequently practiced in the Northeast. People are ostracised if they get married outside of their tribe or family.

In her book Stupid Cupid, Mamang Dai depicts the customary gendering of these civilizations' spaces and spheres, where women are supposed to find their sense of purpose and contentment from their familial ties. As was the case with Adna's aunt, women who break social norms are rejected or treated with disdain. However, polygamy was a common practice among Adna's tribe's men, who were not constrained by similar familial connections. Women now constantly struggle with the conflict between their relational and individualistic tendencies. The woman not only continuously jeopardizes her health for the benefit of the family, but she also faces restrictions on her ability to pursue her hobbies, aspirations, and education. Within the book, Mareb had observed her mother stitch lace onto a tablecloth, but until her final days, he was unaware of her mother's passion for reading. "Perhaps she had hidden her heart," Mareb thought. Her new family even limited her communication with her mother's house. Mareb's mother exclusively went inside the spaces designated for her gender, following social norms. Following her husband's directions, she took care of the household. But even with her total devotion, there was no depth in her marriage to her spouse.

Adna's and Mareb's false love for their extramarital partners has rendered them both blind. When they first arrive in the city, they are both naive and were obsessed about Delhi men They both serve as examples of contemporary women who defy expectations and customs and passionately felt love is not to be corrupted by culture, religion or any such thing.For example, in tribal society, it is not customary to have a cross-cultural marriage. Therefore, Mareb married a man from her hometown, but she continued to love her non-tribal partner from Delhi. Similarly, Adna left her family totally to be with her married buddy, the one she loved the most. These two connections reject the rules.

Adna and Mareb exhibit a type of cultural "hybridity" in which they want to emulate Westerners while also being unable to let go of their heritage. According to Homi Bhabha, hybridity is the "in-between" region that bears the weight and significance of culture, which is why the concept is so crucial. In post-colonial discourse, hybridity is often used to refer to 'trade' across cultures.

Nyanyi Myete Tale

Character Nyanyi Myete, **"the beautiful lady who floated in one day from the deep endless skies," is told in The Sky Queen (2005: 30)**. She was the celestial aunt of the Kojum-Koja, and their empire was destroyed by the great flood. Kojum-Koja was home to a subdued civilization.and participated in a lot of festivals. Before every occasion, they went for hunting and fishing. One such celebration was called "Pi-me," in which participants went fishing and came across a gigantic fish-like object. The elders recognized it as Biri Angur Potung, son of Biri Bote and the strong and formidable ruler of SiliSidong, the Water Kingdom.

However, the youthful Kojum-Koja disregarded the elders' warnings and consumed it all, eventually becoming ill. Koru Ponsung, the Bat, saw everything that took place during the celebration and informed the Queen of Biri Bote about their son's terrible demise. After becoming enraged, Biri Bote launched war against Kojum-Koja. The Kingdom of Water vanquished Kojum-Koja over several days of fighting with storms, rain, floods, and water. Thus, Kojum-Koja's entire civilization vanished beneath the sea. Following the devastation, just Nyanyi Myete stayed alive to perpetuate the music and dances of Kojum-Koja, their lost splendour. She had the greatest compassion for all living things, including humans, animals, birds, and insects. People were moved to "sing and dance and have a good time" by her. For this reason, the Adis commemorate Nyanyi Myete annually in her honor and remember her as a stunning woman who seemed to glide from the sky.

Queen of Biri Borte is shown as a protective mother, who can launch war to give justice to her son. She also has the power to wipe out the entire civilization in her anger and rage. Nyanyi Myete has been portrayed as a savior of civilization.A reader can see both the aspects of a women in ‘Sky Queen’, a women can be a both a creater and a destroyer,a giver and a taker, women can love but with equal intensity rage a war against injustice.

Hambreelmai’s Tale

Another creative aspect of women is in Hambereelmai’s loom.Here, a reader is introduced to character of Hambreelmai’s loom. Happy with her loom, Hambreelmai copies designs from the skies, birds, and water ripples as she sits by the Kamblang river. Having learned from the goddess Matai herself, she is the first weaver. Sheipung the porcupine discovers her beautiful cloth one day and becomes envious. We also see a competitive aspect in Sheipung. The next section tells the tale of how the Mishmi people acquired the skill of weaving such exquisite fabrics. A well-known folktale from Arunachal Pradesh's northeastern hills, featuring breathtaking illustrations that mirror the hues of Mishmi fabric. Additionally, the first book ever published in Mishmi is a translation of Hambreelmai's Loom. There is still a species of little fish called hambreel in Mishmi that swims in the local waterways.Thus , we can see different shades of women,she is ambitous,creative, and competitive. She wants to develop herself in all aspects and evolve.

Conclusion:

Mamang Dai can protest the way that women from the Northeast are frequently exploited, mistreated, and in their land treated like aliens. Characters progressively come to understand racial and sexual politics. Dai's female characters endure a great deal of persecution and loss, but they never give up and persevere through it all. **Nenam, who puts her country before love, The widow Pinyar gives up her comfort for her son, who never shows her any affection; Sirsiri of Gurdum, who survives an unsuitable marriage; Dumi, a faithful and honest wife who is tricked by her husband in her old age; and Mona, a working mother, who battles expectations and duty.** The reader is forced to consider if women should be referred to as fragile due to the resilience of female characters that are based on true characteristics. The conflict between personal interests and those of the community is brought on by a woman's dual identities. The Adi tribe's women are portrayed as courageous and powerful. Even if they occasionally witness horrific things, they can nevertheless stand their ground and prevail in the most trying circumstances. Women in Dai’s novel are resilient, powerful, independent decision-makers.

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GIVING A VOICE TO THE VOICELESS WOMEN FROM MYTH : A STUDY OF KAVITA KANE'S AHALYA'S AWAKENING

[1]Ms. Nikita Mohanty, [2]Dr. Ayuta Mohanty

[1]PG Scholar in English, [2]Assistant Professor

Department of HSS, C.V Raman Global University, Bhubaneswar

[1]Email - nikitamohanty589@gmail.com [2]Email - ayutamohanty@cgu-odisha.ac.in

Abstract : *Mythology has always played a significant role in shaping our beliefs and values. In Indian mythology, the famous epics like the Ramayana and the Mahabharata often portray women in a way that reflects the patriarchal norms and ideals. This paper looks at one such character from a selected novel. The selected novel is Ahalya's Awakening by Kavita Kane. This novel focuses on the story of Ahalya, a character from Hindu Mythology. The novel delves into Ahalya' journey of self discovery and empowerment. Ahalya is portrayed as a voiceless woman in mythology. The book aims to give her a voice and agency in her own story. By focusing on Ahalya's perspective and experiences, the book highlights the importance of amplifying the voices of marginalised women and challenging the traditional narrative that has silenced them. It's a powerful and empowering retelling that aims to bring attention to the untold stories of women in mythology. Ahalya's journey is about finding herself and questioning the expectations society has for her. She wants to live a life that feels true to who she is, and she explores what it means to be her own person. It's a story that explores the ideas of freedom, choice, and finding meaning in life. Ahalya's individuality shines through as she challenges societal expectations and norms, seeking to live a life that aligns with her true self. She questions the roles and limitations imposed on her, and through her journey, she explores the concept of existentialism.*

Key words: *Mythology, Individuality, Existentialism, Women, Voiceless.*

INTRODUCTION :

Mythology is a captivating tapestry of ancient tales, myths, and legends that have been handed down from generation to generation across diverse cultures. These captivating narratives feature gods, goddesses, heroes, and fantastical creatures, offering explanations for the origins of the world, natural phenomena, and human behaviour. It serves as a window into the past, providing insights into how our ancestors perceived and interpreted the world around them. Indian mythology includes a rich collection of epics, such as the Ramayana and the Mahabharata. These epics are filled with gods, goddesses, heroes, and incredible adventures. We have characters like Lord Rama, Lord Krishna, Goddess Durga, and many more. There are also fascinating stories about the creation of the universe and the cycle of life and death. It's a vibrant and diverse mythological tradition that has influenced Indian culture for centuries. These stories may also deal with things that culture believes to be true, and use magic or gods in explaining nature's events.

As we grew up, we often heard stories from Hinduism that mainly highlighted strong male characters. But here's a thought to consider: how many of us have memories of stories with strong female characters? In these stories, women were frequently classified as "negative" or "ideal," playing the parts of spouses, mothers, or evil characters. But there was so much more to characters like Draupadi, Hidimba, Mandodari, Sita, Savitri, and Urmila. These ladies were remarkably intelligent, had their own opinions, and followed their gut feelings. They were not only weak characters; they also showed off their special qualities.

In ancient times, women in mythology often mirrored the gender dynamics of their societies. For instance, in Greek myths, women were often depicted as cunning and manipulative, reflecting the limited roles and oppressive treatment they faced in society. These portrayals were not merely fictional but reflected the patriarchal realities of those cultures. In Classical Greece (5th-4th centuries B.C.), a patriarchal system favoured men, granting them power in politics, the military, and social spheres, while women faced persistent gender inequality. In many Greek myths, "women were often depicted as deceitful, shameful, manipulative, and seen as a threat to men" (Digital Commons@Georgua Southern).These stories made people believe men had to lead to prevent women from causing issues.

The concept of individualism can be applied when thinking about how people interact within cultures. Individualism places an emphasis on the individual within a society as opposed to emphasising the group whereas Individuality can be defined as someone's unique combination of personal qualities along with the idea that each person is unique and distinct. (Study.com)

Eastern philosophies and religions have long been against the idea of individualism. Hinduism, for instance, believes that individualism is an illusion. It is the collective that holds the power in such beliefs. The idea that an individual is any different from the collective is considered to be a naïve view. (Bartleby.com) So, the idea isn't that philosophy ignores individuals, but rather that individuals aren't separate from the group. Essentially, an individual is a piece of the whole, so personal identity is seen as a trick of the mind. It's like saying that a culture's religion mirrors the mindset of that culture.

Existentialism is a philosophical and literary perspective that focuses on the experience of an individual person and the way that he or she understands the world. (Study.com) Existentialism explores life's meaning, personal fate, and finding purpose. Stories delve into life's complexities and moral dilemmas, seeking understanding of one's role.In existentialism, individuals confront the idea of freedom, facing the responsibility that comes with it. They grapple with the search for meaning in the vastness of existence, questioning their purpose and place in the world. It's about acknowledging the freedom to choose, taking responsibility for those choices, and seeking a meaningful existence despite the inherent uncertainties of life.

The sage Gautama's wife was Ahalya also referred to as Ahilya. Her narrative represents the life and character of a Hindu woman of high caste who was chaste and whose life spiralled out of control as a result of her own and the men in it. She is an example of a complex personality that defies easy classification as the conventional wife, devout and obedient. Ahalya's name means untainted or possessing great beauty and virtue. In Hindu lore, she's a complex character.

The Valmiki Ramayana tells the tragic story of Ahalya and Indra's lust and subsequent revenge. The story of Ahalya, who married the great Gautama, is also told of great suffering, sacrifice and devotion for a spouse. Ahalya, a noblewoman of the Puru family, tempted by Indra's treachery, was cursed by her husband and turned into stone. Indra was struck by Ahalya's beauty and wanted to find her match. Indra disguised himself as Gautama and Ahalya let Indra into their house. Many texts describe her suffering when Indra, the king of the gods, came disguised as her husband, and how Ahalya succumbed to Indra's tricks and acceded to his work. Later, when Gautama came and saw Ahalya and Indra, he insulted them both and cursed his wife.

“Kavita Kane is an Indian writer. She is known for writing Mythology-fiction. All of her books are based on Indian mythology. Her bestselling novel is Karna's wife: the Outcast Queen and is an author of the new era of retel.”(Frontlist) She is known for her mythological fiction novels. Her writing style blends history, mythology and storytelling beautifully. Kane's work has gained popularity for its unique perspectives on ancient tales.

LITERATURE REVIEW :

The research article by *The Legend of Ahalya: A Midnight Imposter at the Hermitage* (2021) by Somasundaram Ottilingam et al. centres on Ahalya, the wise Gautama's wife. In the narrative, while Ahalya's husband is gone, an impostor poses as Gautama and attracts her. Unaware of the imposter's true identity, Ahalya unintentionally betrays her husband in the shadows. Gautama condemns Ahalya for her infidelity when he comes back. Themes like temptation, faithfulness, and the fallout from lying are all explored in this legend. It functions as a warning story, emphasising the value of judgement and the consequences of giving in to temptation. The narrative is an interesting subject because it has been the focus of numerous literary interpretations and conversations about Ahalya's agency, victimhood, and societal dynamics.

The research article *In Histories from Below:The Condemned Ahalya, the Mortified Amba and the Oppressed Ekalavya* (2018) by P.Balaswamy tells us about the P.Balaswamy’s three marginalised characters in Hindu mythology are analysed through the lens of their social status and agency, as well as the injustices that they faced in life. Amba’s humiliation and Bhishma’s desire to avenge her is a metaphor for power dynamics and women's agency, while Ahalya is a symbol of the consequences of society’s norms, gender roles, and caste discrimination. “The Condemned”, “Amba” and “Ekalavya” are considered to be marginalised voices in Hindu mythology, and the author delves deeper into the narratives of these characters to offer insights into their complexities and relevance to today’s social issues.

The article *Transgressing Gender: A Cross-Cultural Study of Helen and Ahalya* (2020) by Dr. Shaheen Ebrahimkutty A.V and Aiswarya K compares the stories of Helen from Greek mythology and Ahalya from Hindu mythology. They look at how both women faced consequences for breaking societal rules. The study examines Helen running off with Paris and Ahalya's mistake of being tricked by an imposter. By comparing these tales, the authors explore themes like responsibility and punishment for women who challenge societal norms. They show how these stories highlight universal ideas about gender roles across different cultures.

DISCUSSION :

The selected novel that has been taken is *Ahalya's Awakening* by Kavita Kane. In Kavita Kane's novel "Ahalya's Awakening," the story explores Ahalya's inner world and her experiences beyond the traditional narrative. It delves into her emotions, struggles, and growth, offering a fresh perspective on this iconic character from Hindu mythology. The novel likely provides a nuanced portrayal of Ahalya, shedding light on her complexities and inner conflicts, making her a more relatable and multidimensional figure. It's fascinating to see how the author reimagines Ahalya's story, giving readers a deeper understanding of her character and the events that shaped her life.

Ahalya's redemption journey is depicted as she navigates through trials and tribulations. Initially, Ahalya is portrayed as a character who faces consequences for her actions, such as being turned into stone for her involvement with Indra. However, as the story progresses, we see Ahalya's inner transformation and her quest for redemption. Through her experiences, she learns valuable lessons, gains self-awareness, and seeks forgiveness. Ahalya's journey showcases her resilience, growth, and eventual redemption, making her a complex and compelling character in the narrative.

Ahalya delves into her inner thoughts and emotions, revealing her depth as a character. For instance, when Ahalya reflects on her past actions with Indra, she grapples with guilt and remorse, showcasing her internal conflict. Additionally, her interactions with other characters, like her conversations with Sage Gautama, highlight her complexity and inner turmoil as she seeks understanding and redemption. Ahalya's introspective moments and emotional journey throughout the book illustrate her as a multidimensional character with layers of emotions and motivations.

In the book "Ahalya's Awakening" by Kavita Kane, Ahalya challenges society's expectations. For instance, her decision to face her past and seek salvation in spite of society's judgement shows her defiance against society's rules. In the book, Ahalya goes on a journey of self-exploration and self-empowerment where she takes charge of her story and looks for her own way.

Ahalya showcases her unique perspective and voice by challenging societal norms. For instance, when she decides to confront her past and seek redemption, she demonstrates her independence and strength, highlighting her distinctive viewpoint and voice in the story.

Ahalya illustrates her growth by confronting her past mistakes. For example, when she chooses to seek redemption despite society's judgement, she shows her inner strength and transformation throughout the story.

Ahalya's exploration of existentialism in "Ahalya's Awakening" is profound. She delves into the core of her being, questioning her very purpose and the norms that confine her. By challenging societal expectations, Ahalya embarks on a journey of self-discovery, redefining her identity in the process. Her introspection mirrors existential themes, highlighting the complexities of individuality and the pursuit of true freedom amidst the constraints of society. Through Ahalya's narrative, the author skillfully weaves a tale that resonates with those seeking to understand the essence of existence and the quest for self-realisation.

CONCLUSION

The existential journey of Ahalya in "Ahalya's Awakening" masterfully illustrates her pursuit of uniqueness and self-awareness. Ahalya, who is questioning her identity and purpose in a world limited by social conventions, epitomises existential themes throughout the story. Her battle reflects the core of existentialism, emphasising the value of individual autonomy and genuineness. Ahalya is a symbol for the age-old quest of defining oneself according to one's own terms as she resolves personal issues and defies social expectations. Her trip offers a potent examination of uniqueness, highlighting the importance of accepting oneself in spite of other influences. Through exploring Ahalya's existentialist journey, the book asks readers to consider the intricacies of life and the innate yearning for independence and self-discovery. Through Ahalya's journey, "Ahalya's Awakening" honours the bravery and strength needed to figure out one's own path and stand out in a society that frequently values coherence, in addition to highlighting one's existential search for meaning.

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CHANGING NATURE OF LANGUAGE AND LITERATURE IN THEWORLD OF TECHNOLOGY

Dr. Renjini Pradeep
Assistant Professor in English, Ness Wadia College of Commerce, Pune
Email - renjini75t@gmail.com

Abstract : The term 'technology' is often understood as referring to computers, mobile phones and other modern gadgets and their use. The word technology has its root word 'techne' means craft or making. 'ology' means a branch of knowledge.

However, 'technology' simply means: the practical application of knowledge especially in a particular area **(M-W Dictionary, 2023)**. Even the stone tools used by primitive humans may be called technology, albeit in its crudest form. Even the evolution of literature maybe traced back to cave scribblings and drawings by pre-historic humans.

Key words: techne, gadgets, sribblings, albeit, crudest.

The best way to learn a language is to listen and to speak. Dr. Shashi Tharoor.

Objectives of the study

1. To investigate and comprehend the underlying circumstances and real results in English language and literature in the world of technology.

2. To recognize the challenges faced by readers and writers in English and also the difficulties faced while using literature in the present situation.

3. To understand the approach and attitude of readers in coping with the challenges.

4. To do comprehensive research that will contribute towards the quality improvement of English language.

However, literature evolved into its present form starting from the invention of the printing press in 1436 **(The history of printing, 2021)**. Since then, it was a gradual process. While advancements in technology have allowed greater access to writings from the classics to contemporary works, it has also changed the nature of language in terms of spelling, meaning and to some extent even syntax. Technology leads to linguistic and cultural change. That's why dictionaries are permanently ready to add new and typically very trendy words. In this respect, Dewey (2015) and Al-Kadi (2017) believe that old words that have gotten new meanings are more interesting than new words. The expansion of the literary market, especially the market for works of fiction, played a crucial role in the development of the new culture of consumption.

3000 BC and earlier

The Mesopotamians used round cylinder seals for rolling an impress of images onto clay tablets. In other early societies in China and Egypt, small stamps are used to print on cloth.

In the 2nd century AD, Ts'ai Lun, a Chinese eunuch court official, invented the paper. Woodcut, images carved on wood, started in the 13th century. The printing press started in the year 1436. In the sixteenth century the first printer came out with more portable books. The *'Historia Veneta'* (1551) is one of the many books of **Pietro Bembo**, a Venetian scholar, and cardinal who is most famous for his work on the Italian language and poetry. In the eighteenth century modern colour printing had started. In 1800 Charles Stanhope, the third Earl Stanhope, builds the first press which has an iron frame instead of a wooden one. Chromolithography is a method that is used for colouring in printing in 1836. Weekly newspaper started with the invention of printing press. The speed of printing process increased with the invent of first lithographic **rotary printing press**, a press in which the type is placed on a revolving cylinder instead of a flatbed. In 1903 American printer Ira Washington Rubel is instrumental in producing the first **lithographic offset press** for paper. In 1907 the Englishman Samuel Simon is awarded a patent for the process of using silk fabric as a printing screen. **Screen printing** quickly becomes popular for producing expensive wallpaper and printing. In 1915 **Hallmark**, founded in 1910, creates its first Christmas card. It is during this same era that magazines such as **the National Geographic Magazine** (1888), **Life** (1883, but focussing on photojournalism from 1936), **Time** (1923), **Vogue** (1892) and **The Reader's Digest** (1920) starting reaching millions of readers. The first commercially successful series of **paperback** books are published by Penguin Books in the UK in 1935. The first laser printers, such as the **IBM 3800** and **Xerox 9700,** hit the market in 1975. They are prohibitively expensive but useful for applications such as cheque printing.

People used pen and paper in the early times but now they use WhatsApp, and other media to connect with each other. People had the time and leisure to sit, think and write read Shakespeare, Milton etc and used to remember the lines but in the present situation the writings increased and when it is read by people it is forgotten after sometimes. Nobody has the time to read a long novel or epics. In the present situation people prefer a short story or short poem because of the time lag. Instead of people visiting the libraries, they prefer online books and saves time to read. E-book reading services like oyster, scribd and entitle have emerged.
National Literacy Trust Director, Jonathan Douglas said:

"Technology is playing a central role in young people's literacy development and reading choice. While we welcome the positive impact which technology has on bringing further reading opportunities to young people, it's crucial that reading in print is not cast aside.

"We are concerned by our finding that children who only read on-screen are significantly less likely to enjoy reading and less likely to be strong readers. Good reading skills and reading for pleasure are closely linked to children's success at school and beyond. We need to encourage children to become avid readers, whatever format they choose."

People's internet addiction is growing every second. Knowledge does not depend on the educational system but has moved beyond formal learning experiences. Reading a novel has always been a wonderful experience that offers a break from monotonous life and offers a wide range of interpretation. Novels have always had a positive impact on social skills by enhancing empathy and making the reader better thinkers. With the advent of the internet, we see a change in literary style, culture and mindset. It has now become a part of the collaborative learning process. The acceptance of changes will improve the concept of learning as they become more widespread in their use. The lack of updated technology causes people to resist change. Reading is possible anytime, anywhere, regardless of your milieu. E-learning has challenged the traditional way of learning. There is an urgent need for a blended learning program to make reading a whole new brilliant experience. E-learning has proven to be cost effective and meets our learning needs. E-learning is a dynamic process and young people in particular are more inclined to do so. People's attitudes are changing over time as e-learning has played an important role in making reading an amazing experience. You could call it a new wave for an intellectual movement.

Influence of technology

Technology has transformed the stagnant world, undergoing a total shift from a rule to a construct. Technology as a study evolves every other second and fascinates human minds. The technology not only saved lives but also played a remarkable role in saving the earth from deforestation. There seems to be a strategic development in the learning process. Change is inevitable whether you like it or not. E-reading has become part of the collaborative learning process, a breakthrough booming technology for learning acquisition, and the concept of learning through these devices has become more widespread in their use. Curiosity is the birth of knowledge. These devices are dynamic, motivating and also interactive. They also offer users autonomy. When a new book is published, we don't have to wait for the latest edition to be printed and available in our shop next door. We can just google it, download it and enjoy reading on iPads, laptops, tablets and phones. The devices are also capable of storing more than hundreds of texts. There is an application called Readers Hub, Book Store. With these mobile reading applications, one can buy old as well as newest books and novels at any time, and moreover, such applications contain millions of novels. We have to enter the novel name and our book is just a click away. E-book has improved durability, accessibility, portability and availability for readers with the growing education.

Reading has always had a positive effect on social skills, increasing empathy and making the reader better thinkers. With the advent of the internet, we see a change in literary style, culture and mindset. It has now become a part of the collaborative learning process. Novels can be read anytime, anywhere, regardless of your milieu. E-learning has challenged the traditional way of learning. There is an urgent need for a blended learning program to make reading a whole new brilliant experience. E-learning has proven to be cost effective and meets our learning needs. E-learning is a dynamic process, to which young people in particular are more inclined. For millennia, long before Gutenberg invented the printing press, access to written sources such as scrolls, historical records, or books to obtain information was considered a luxury. Books were copied by hand in a painstaking process before most were lost to war, natural disaster, or neglect. However, Gutenberg's revolutionary invention in the 15th century revolutionized the way books were reproduced and, with it, people's reading habits. Today, in the 21st century, we are experiencing another such revolution, thanks to digital technology. Like the printing press did, technological blessings like the internet, smartboards, tablets and e-readers are once more reshaping our reading and learning habits entirely.

One of the most important things that has changed as a direct result of advancing technology is the way we receive new information. The times when dusty library shelves had to be searched for books to find information are long gone. Now, with just a click of a button and through search engines, one can access hundreds of resources on almost any topic. Compared to searching physical books and library archives, which may have limited resources, using a search engine to locate specific information is much more convenient and efficient. Therefore, the time it would take you to just find resources in a library could actually be enough to find, examine, and critically analyze the same information. Technology has even changed the way we use libraries. For example, instead of searching through the shelves one by one, you can simply reserve the book you want online and then pick it up in person. This in turn saves a lot of time. Some modern libraries even offer their members the opportunity to borrow e-books and access their database online. However, libraries that refuse to adapt to advancing technology risk becoming obsolete.

Meanwhile, technology is also changing, in some cases eliminating traditional classroom activities. Smartboards, which are much more practical and allow the use of virtual materials, are increasingly replacing blackboards. Other technological devices such as projectors, computers and 3D printers are also used. In addition, thanks to programs like Blackboard, distance learning has become very popular. Many reputable universities around the world are now offering online bachelor's and master's degree programs online. For many students, using physical books, pens, and paper is a thing of the past. Instead of carrying books and notebooks with them every day, students carry tablets that can hold hundreds of books and take notes at the same time. You can also benefit from educational videos during the course and even sit for exams online. The textbooks used in class are equipped with virtual and audible materials, which can help them follow the lecture and enhance their learning experience. In addition, students can now always stay in touch with their teachers, making it easier for them to request and receive help with homework or projects.

Apart from education, free reading activities are also being affected by technology. According to a Pew Research Centre report, the amount of e-reader users in the U.S. has grown from 17 percent in 2011 to 28 percent in 2016. With e-books being well-known throughout the world, [multiple] e-book reading services have emerged. Among them Oyster, Scribd, and Entitle, three of the very common services, provide their users distinctive experiences. All three offer subscription based services and enable access to more than 100,000 books. Oyster and Scribd only enable their subscribers to read e-books, while Entitle allows downloads and offline use. When it comes to recommendations, Entitle categorizes its publications in a more conventional way but Oyster and Scribd feature unconventional categories like, important role in and "Cliffhangers." While Oyster is an iOS-devices-only service, Scribd and Entitle are accessible on both iOS and Android. Though e-readers have a wide user base, numerous people still prefer printed books, mostly for reading activities such as reading a book with your child at the bedtime.

Conclusion :

The most important developments of technology are TV and computers. Both affect the youngsters because of the misuse of it in the present world. Most of the programmes that is shown on TV is of violence, murder, bloodshed negatively affect the mindset of the people and family. The habit of reading books and magazines and communication within the family has reduced to an extent. Social interaction of people outside world has also stopped to some extent. People lost the capacity of natural thinking and creativity.

Modern and post-modern writers dealt with wider issues like gender issues, discrimination, marginal issues, feminism etc. With the advent of technology modern literature saw the rise of science fiction also. The new form of poetry and drama emerged in the 20th century. A lot of changes affect architecture, music, painting and sculptures. Technology took much interest in the publication and circulation of various books and research articles. Digital platforms like Google, Kindle, Whatsapp take away human aspirations and emotions. A lot of online courses started in various institutions on different languages related to creative writing and content writing. Digital platform lack tactile occurrence. Hypertexts are ambiguous and unapproachable. The use of technology needs self-motivation and proper time-management skills. The technology has changed the shape of language and literature to an extent like change in the meanings of words and increasing the creation of buzzwords and shortcuts.

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The path-breaking maverick effort of the first Russian Indologist:

Gerasim Sepanovich Lebedev

Dr. Atmoja Bose
Assistant Professor in Russian
Department of Slavonic & Finno -Ugrian Studies, University of Delhi.
Email - atmoja@yahoo.in

Abstract: *This article attempts to delineate and plot the contours of the intercultural contributions of Gerasim Lebedev in a linguistic-cultural domain totally alien to him, in early-colonial Calcutta. Gerasim Stepanovich Lebedev or Herasim Lebedeff, a Russian linguist, adventurer, translator, musician and writer lived in Kolkata for ten years from 1787- 1797 : Lebedev a pioneer of Russian Indology and also of " Bengalee theatre" opened with the assistance of local intellectuals at 25, Domtalla (at 37 Ezra street) in Kolkata that used Bengali actor and actresses for the first time in the performances of Bengali adaptations of "The Disguise" and "Love is the Best doctor" on 27th November 1795.Gerasim Lebedev taught himself Hindi, Sanskrit and Bengali before translating plays and becoming a theatre pioneer. Gerasim Lebedev was not only the pioneer of Bengali theatre but also a great observer of the Indian society in British era. We can able to see the social, cultural and economic scenario through his eyes. The basic of this paper is to pay homage to the man, who gave 20 years of his life just to discover India against British rule and his love for our country and culture of us compelled him to learn Indian Languages.*

Key Words*: Interculturality, Gerasim Lebedev, Goloknath Das, Russian Indology, pre-Victorian Bengali Theatre, Sir William Jones.*

Indology or South Asian studies is the academic study of the history, culture, languages and literature of India and as such is a subset of Asian studies. In India it was the British, the colonial rulers, who formally created the subject Indology at the end of 18th century. At that era the English scientists William Jones (1746-1794) founded the Asiatic Society of Bengal in Kolkata in 1784.

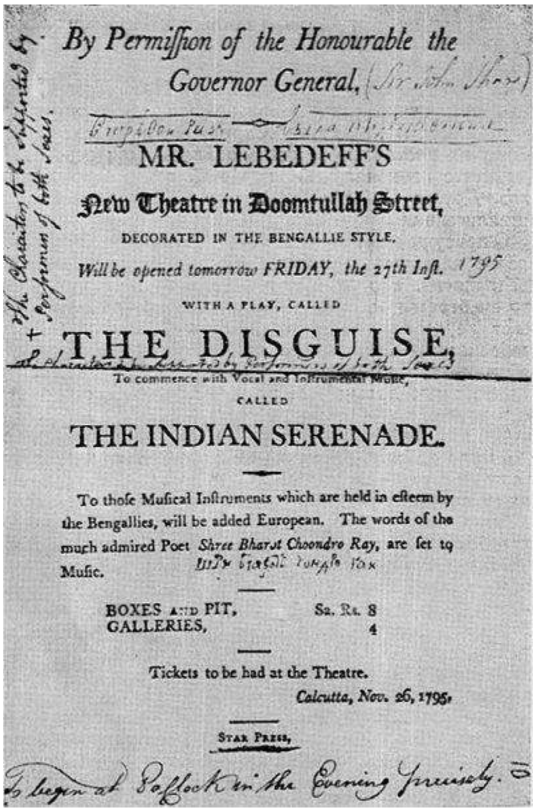
Lebedev was not the first Russian to visit India. There had been a few others, the most famous being Afanasi Nikitin (Афанасий Никитин) who travelled in fifteenth century as horse merchant and trader to the Deccani kingdoms. In the travelogue, *Journey Beyond the three seas* (Хожение за три моря) describes the rivalry between the Bahamani and Vijayanagar kingdoms that the traveller was witness to.

Pic: Gerasim Stepanovich Lebedev

Lebedev was born in the ancient Russian city of Yaroslavl in 1749 by the river Volga. His early life was conflicting a bit. One has it that Lebedev's father led the church choir , but the family left soon afterwards to settle in St Petersburg the capital of Tsarist Russia. Soon Fyodor Volkov (who apparently had once operated a theatre in Yaroslaval) had by then set up a permanent theatre in St Petersburg and Lebedev found a mentor of sorts in him.

Another version of his early life appears in Anne Swartz's book, Piano Makers in Russia in the Nineteenth Century: Lebedev was born into serfdom into the Razumovsky estate. Lebedev lived in India for fourteen years, firstly he came to Madras in August 1785 and he would remain there for the next two years : then in Calcutta (or Kolkata). In August 1787, Lebedev moved to Calcutta where he was to live for the next ten years and he was able to establish himself as a musician. His flair for languages compelled him to learn local languages quickly. But it was not easy because he travelled there in 1787 and that time it was a part of British India.

At that time he struck up with an unusual maverick scholar, Goloknath Das. They both agreed that while Goloknath Das would teach him Bengali and the other local dialects. Lebedev would teach him the violin in return. He succeeded in learning of Bengali and spoken Hindustani, which was a rear knowledge throughout the subcontinent. He also got some knowledge about the Shomskrita [i.e Sanskrita] language. During his stay in Calcutta (or Kolkata, as he preferred to spell it), Lebedev established the first European - style theatre in Bengal, for which he wrote plays in Bengali. He was willing to share knowledge he acquired, not only with his fellow citizens but the whole Christian world.



Pic: Poster advertising Lebedev's first performances of his plays on 27 November 1795.
Image taken from Wikimedia (Public Domain)

Lebedev a pioneer of Russian Indology and also of "Bengalee theatre" opened with the assistance of local intellectuals at 25, Domtalla (at 37 Ezra Street) in Kolkata that used Bengali actor and actresses for the first time in the performances of Bengali adaptations of "The Disguise" and "Love is the Best doctor" on 27th November 1795.Gerasim Lebedev was not only the pioneer of Bengali theatre but also a great observer of the Indian society in British era. We can able to see the social, cultural and economic scenario through his eyes. The basic of this research is to pay homage to the man, who gave 20 years of his life just to discover India against British rule and his love for our country and culture of us compelled him to learn Indian Languages. It is our duty to rediscover our history through the eyes of Gerasim Stepanovich Lebedev.

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GRAMMAR
PURE AND MIXED EAST INDIAN DIALECTS
SHAMSCRIT LANGUAGE.
BY HERASIM LEBEDEFF,

Pic: Cover of the grammar of Indian dialects by Lebedev.
Image taken from Wikimedia (Public Domain)

After his return from India, Lebedev published one of the first grammars of the new Indo-Aryan languages, focusing mostly on spoken Hindustani in 1801 London. In 1802, He founded in St Petersburg the first printing house in Europe to use Bengali script. It was there that Lebedev's principal work, *An Impartial Review of the East Indian Bramgens' Systems, of their Sacred Rites and Folk Customs*, was published in 1805. In this book , Lebedev made an attempts to acquaint the educated class of Russia with India's rich heritage. For number of reasons, the book remained unnoticed so that our objective is to pay special attention in it, through this book we can cherish the social and cultural customs in the eyes of an Indologist.

A number of manuscripts from the St Petersburg archives, either previously unidentified or known only by their titles, were brought to light : Lebedev's draft materials for his unpublished grammar of the Bengali language were studied (Kryuchkova 2007); Lebedev's attempts at translating texts from the Old Testament into the languages of India were discovered (Gurov 2006); Lebedev's rendering of some passages from the *Bhagavadgita* into Russian was found in his "mathematical manuscript" (Vassilkov 2006); Sanskrit poem attributed to *Sankaracarya* was recognised in a text earlier thought to be a poem in Bengali and Lebedev's translation of the poem was shown to be the first translation from Sanskrit into Russian. But there are many more things yet to be discovered; It is our duty to find all the unpublished works of Gerasim Lebedev and try to understand the causes of his true love for India.

The first volume of the "mathematical manuscript" is bearing the title "Systematical elementary speculative and essential foundations of the East Indians Bramgens' Arithmetic" (SF) came as the biggest surprise. The "Arithmetical tables" are purely "mathematical" by nature and so that historians and philologists did not pay much attention to these. But in second volume of mathematical manuscript, the "Arithmetical tables" demonstrated Indians rules of counting, specially as applied to the monetary system. It was a practical guide compiled for Russian traders and travellers, in order to escalate their business in India. But Lebedev was

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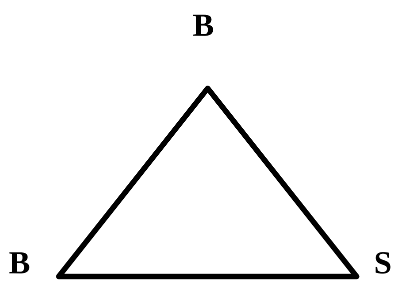
totally convinced "that the Arithmetic of the Bramgens, as well as their alphabet, contains, mysterious meanings of Indian Divine Wisdom and that certain numbers are perceived sometimes as signs of a Deity or of a Divine quality". He also believed that "the said arithmetic of the Bramgens is founded upon their philosophical and theological system and serves them as a means to mental contemplation of the God and as the key to the mysteries of nature". Lebedev decided, therefore, that the "tables" needed a preface to introduce what, in his view, was lurking behind Indian arithmetic (i.e. the religious doctrine of Hinduism) Lebedev's description of the Hindu religion published in the "Impartial Review" in 1805, we can see that Lebedev was consistent in his high appraisal of Hinduism. Lebedev interprets Trimūrti (the well- known three Hindu gods Brahmā, Visnu and Siva) as "one-essential Trinity which they call in their language 'the Triad - Troiko'. According to Lebedev, the god Brahmā ("Brormgo") is "Creator of Heaven and Earth", of all visible and non - visible creatures. Lebedev substitutes Visnu the "second person of the Holy Trinity" with krsna (the name of his incarnation on Earth). Moreover he uses a form that hints at his identification with Christ (Krishto, Krishtno or Krishtna)[1]. He also calls Krishtna the "incarnation of Son of God" who was sent to Earth. Elsewhere Lebedev mentions the two names of the "Trinity's second person" : Krishtnyo and Bishtnyo (i.e. Krsna and Visnu). The First, according to Lebedev, means "the Anointed" (i.e. the Messiah, Christ). The second interprets as meaning "of two natures", which again has a parallel with Christ. Lebedev remarks further that as soon as an adept of Hinduism is "anointed and introduced into the community, he is called Bishtnob = Vaisnava which means a 'Christian'. "The third person of the Holy Trinity" in the Hindu system, according to Lebedev is "Shib" (i.e. Siva), whom he defines as "Transfigurer' and "Renovator" and believes that he is responsible for "governing the lives and deaths of all people living on Earth".



Pic: Holy Trinity

(**B** - Brahmā , **B -** Bishtnyo , **S -** Shib)

Finally, Lebedev identifies the Hindu Goddess Durgā with Sophia, "The Wisdom of God", calling her "Krishtyo's mother" who fed him with the milk of her breast. Lebedev identifies Goddess Durgā with Virgin Mary to such extent and remarks : "The Graeco - Russian Christian church celebrates her [Durgā's] feast on the same day [as the Hindu do]". The image of Durgā, as Lebedev presents it, "does not differ greatly from the image of Mother of God represented by Christians: both representation have a crown, bracelets and necklace, the only difference being that in Indian representation the face is painted black".

[1] Here I would like to mention, that Swami Vivekananda, in his Los Angeles lecture delivered in 1900, describes, "And when we enable our brothers and sisters to seek the truth by any means conducive to them we get even closer to our own chosen ideal - be it Christ or Krishna. "

It is in Calcutta that he met Goloknath Das, his Bengali tutor and collaborator, who was to not only give Lebedev his idiosyncratic grasp of Bengali, Hindustani and Sanskrit - in that order to expertise - but also facilitate his dramaturgical - theatrical escapades. These two met, however, after a couple of years of fruitless searches by Lebedev to find a Sanskrit - scholar willing to take him on. According to the renowned Bengali academician and linguist Suniti Kumar Chatterji, Lebedev "was very much under the influence of his informant, Golok Nath Das, who was his friend, philosopher and guide in his linguistic studies as well as in his theatrical ventures. Lebedev, in his enthusiasm for what he considered to be the right way of approach to study Indian languages and Indian Culture, seems to have taken for correct whatever he received from the source of his information." (Chatterji 1988: Foreword. In: H. Lebedeff. A Grammar of the Pure and Mixed East Indian Dialects. Calcutta: Firma KLM)

The research objective is always used to find the truth. Here we are seeking for the huge contributions of a Russian Indologist against British government and against all odds of the society. Gerasim Lebedev fought for Indians against British just to nurture our culture and our heritage but even that only few Indians were there with him. False allegations and number of false cases made him bankrupt but after all these economical, physical and mental hazards he never gave up. In this paper, we would like to pay the ultimate homage to the pioneer of *Bengalee theatre*.

His enormous efforts and quest for knowledge, made him a successful translator, a great musician and a linguist. May be we didn't remember him as a social reformer but what he did for our society and for our people against British power is indeed remarkable. He made his footprints on the three pillars of the society which are Drama, Music and Language.

These are the reasons, that we wanted to see throw his eyes and tried to explore the culture, rituals, heritage and the real flavour of India. Our goals are to salute the true spirit of a Russian Indologist and cause of his endless love for India, when the concept of Indology actually didn't exists.

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Unravelling the Perspectives and Listening Competence of English as a Second Language Students

Pooja V. Pathak
Research Scholar, Marwadi University, Rajkot, Gujarat, India
Email - Pooji.mehta21@gmail.com

Abstract : *This theoretical research paper explores the nuanced dimensions of listening competence within the realm of English as a Second Language (ESL) education. It aims to disentangle the complex viewpoints that support ESL students' mastery of this crucial language ability. A key component of language learning is listening comprehension, which is necessary for effective communication, thorough comprehension, and general language ability. Understanding the elements that affect ESL students' listening proficiency is critical for language researchers, educators, and policymakers. It provides an essential basis for developing targeted treatments and instructional techniques that improve ESL students' listening abilities. Through exploring the complex field of listening competency, this study seeks to offer insightful information that can improve language education methods and guarantee a more efficient and inclusive approach to ESL instruction.*

Key words: *English as a Second Language (ESL), Listening competence, Pedagogical perspectives, Communicative Language Teaching (CLT), Task-Based Language Teaching (TBLT), Language acquisition.*

INTRODUCTION:

Listening is the foundation of English learning. Listening teaching is also an important part of English teaching classroom, a proper listening teaching method is considered to play an important role in advancing in listening apprehension. (Li, Yilin & Li, Weilin & Sun, Shiyu, 2023) Students learning English as a second language (ESL) encounter particular difficulties in cultivating their listening skills due to the intricacies of a foreign language and cultural milieu. This essay aims to investigate the theoretical foundations that support the many viewpoints influencing ESL students' listening proficiency. Teachers can learn a great deal about the linguistic, sociocultural, and cognitive aspects influencing their students' comprehension of spoken English by dissecting these viewpoints.

Cognitive Perspectives:

Learners of English as a Second Language (ESL) face numerous obstacles when navigating the intricacies of picking up a new language. One of the most important core abilities for learning a language is the ability to listen. The two theoretical frameworks that shed light on the cognitive aspects of ESL students' participation with listening tasks are the Information Processing Model (IPL) and Cognitive Load Theory, which are the main topics of this introduction. A theory called Cognitive Load Theory (CLT) explores the cognitive loads that people are subjected to when completing learning tasks. CLT offers a lens through which we can investigate how learners may be impacted by the inherent difficulties of listening tasks in the context of ESL students and their listening competency. Working memory capacity, vocabulary size, and attentional resources are just a few examples of factors that significantly impact how much cognitive burden ESL students encounter when participating in listening exercises. It is crucial for academics and educators to comprehend how these variables interact in order to improve teaching strategies and establish settings that support language acquisition.

Cognitive Load Theory: A theoretical framework known as Cognitive Load Theory (CLT) provides a thorough understanding of how listening tasks' cognitive demands may affect students learning English as a second language (ESL). Cognitive aspect of learning is concerned with thinking processes and underlying mental procedures involved in the overall learning process. (Yadav, Vinod. 2023) Cognitive Load Theory (CLT), formulated by John Sweller, describes how working memory processes information and includes three types: intrinsic, extraneous, and germane. (Clark, Chad & Kimmons, Royce, 2023) According to this idea, people can only process information using a certain amount of cognitive resources when learning a new skill, and knowing these constraints is essential to designing effective teaching strategies. When used with ESL students participating in listening exercises, CLT encourages an investigation of the different elements that go into the cognitive load that students encounter. One such element that is crucial to understanding spoken language is vocabulary size. ESL students frequently struggle with a wide range of foreign words and idioms, and understanding spoken English can be greatly impacted by the cognitive work needed to interpret and integrate these language components. The model of human information processing is the basis of Cognitive Load Theory (CLT). The human information processing has three important parts namely sensory memory, working memory, and long-term memory. (Yadav, Vinod. 2023)
Another essential element of CLT is working memory, which is the brain mechanism in charge of storing and modifying information momentarily while performing cognitive activities. Working memory constraints can be more noticeable when it comes to listening tasks for ESL students. Not only must spoken language be decoded, but words must also be retained in memory and integrated with later information at the same time. The cognitive load associated with managing these processes can strain the working memory capacity of ESL learners, affecting their overall listening competence. In the cognitive processing of working memory, motivation and emotion jointly influence processing. (Gao, Tian & Liu, Xintong & Geng, Wenting & Yan, Chunping & Wu, Meng & Yang, Lei., 2024)

Within the scope of CLT, attention is the third crucial component. When participating in listening activities, ESL students frequently face linguistic and contextual distractions. Another layer of cognitive load is the requirement to separate pertinent information from competing verbal cues or background noise. Consequently, figuring out the subtleties of cognitive load for ESL students requires an understanding of how attentional resources are distributed during listening activities. Through the lens of cognitive load theory, we may examine the complex cognitive demands of listening exercises for English as a Second Language learners. Through the analysis of variables like vocabulary size, working memory limitations, and attentional allocation, researchers and educators can better understand the unique difficulties that ESL learners encounter when it comes to listening comprehension. This knowledge contributes to the larger conversation on successful language learning techniques catered to the cognitive architecture of ESL students as well as the creation of focused instructional tactics.

Information Processing Model: A thorough theoretical framework that explores the intricate mechanisms by which English as a Second Language (ESL) learners encode, retain, and retrieve auditory information during the challenging job of listening is known as the

Information Processing Model (IPM). The five information processing processes of Akin's (1986) information processing model, DIPS (design information processing system), 'Information acquisition', 'Information representation', 'Information projection', 'Information confirmation', and 'Regulation of control'. (Choi, Du., 2023) This model, grounded in cognitive psychology, provides valuable insights into the cognitive architecture involved in language processing and comprehension.

A. Encoding: The encoding stage of the Information Processing Model (IPM) is a critical component, especially for English as a Second Language (ESL) learners who are tasked with the complex task of understanding spoken language. The complex act of translating spoken words and sentences into mental models that may be further stored and processed for comprehension is what this level entails.

The first difficulty that ESL students face in the encoding stage is having to transfer new phonemes, intonations, and language structures onto their preexisting mental models. Spoken language is dynamic, which adds a whole new level of complexity. These include subtle differences in accent and pronunciation as well as the subtle use of intonation to communicate meaning. This is a challenging landscape for ESL learners to traverse, bridging the gap between their home language and the new linguistic features they come across when listening. It is impossible to overestimate the importance of the encoding phase since it is a fundamental factor in determining good comprehension. The mental models that are used in later phases of the information processing model are shaped by the way ESL students encode auditory input. The encoding phase becomes a crucial point determining the overall efficacy of language comprehension as individuals struggle to assimilate novel linguistic elements.

Encoding involves more than just comprehending words at a surface level; it also involves synthesizing these constituents into coherent language structures. In addition to understanding the phonetic subtleties of each word, ESL learners need to incorporate them into logical mental models that correspond with the grammatical and contextual elements of spoken language. ESL students face a significant barrier during the Information Processing Model's encoding phase, which calls for the skillfull mapping of novel auditory stimuli onto preexisting cognitive structures. The outcome of this encoding project has a substantial impact on later phases of language processing and comprehension. For researchers and educators looking to create focused treatments that help ESL learners seamlessly integrate new language features into their cognitive repertoire and improve their listening ability, it is critical to understand the nuances of this phase.

B. Storage: In the context of the Information Processing Model (IPM), the storage stage becomes a crucial point at which English as a Second Language (ESL) students are attempting to master the complex process of understanding spoken language. The requirement to momentarily hold decoded audio data within the boundaries of working memory—a cognitive apparatus renowned for its limited capacity and fleeting nature—defines this phase. During the storage phase of the Information Processing Model, ESL learners retain pertinent linguistic features that were encoded in the preceding stages. They have to combine this stored knowledge with continuous auditory input at the same time in order to generate a coherent mental image that fits the changing spoken conversation context.

The transient nature of working memory presents a complex barrier for ESL learners during the storing phase. Working memory's finite capacity forces learners to selectively retain important language components, so they must efficiently prioritize and control the flood of information. This selectivity becomes more noticeable in the presence of competing language cues because of the possibility of interference, which increases complexity. The careful balance that ESL learners must find between keeping pertinent linguistic aspects and filtering out unnecessary material affects the cognitive load that they experience throughout the storage phase. The difficulty is not only in preserving the accuracy of information that has been stored, but also in doing so while adhering to working memory limitations. The entire cognitive load that ESL learners encounter while navigating the storage phase of the Information Processing Model is greatly influenced by this dynamic interplay.

For the storage phase to be completed successfully, cognitive processes must be coordinated effectively. This means that ESL learners must be able to combine newly learned material with previously stored information in an easy-to-understand manner. The development of language comprehension is shaped by the ability to regulate this integration process, which is essential to retaining a coherent knowledge of spoken language. The information processing model's storage phase highlights the complex cognitive processes that ESL students need to negotiate the challenges of understanding spoken English. Through a close examination of the difficulties presented by working memory limitations and possible disruption from conflicting language cues, researchers and educators can develop a more sophisticated comprehension of the cognitive complexities involved in the storage stage. This knowledge guides the creation of focused interventions meant to reduce cognitive load and maximize working memory, which in turn improves ESL students' listening proficiency.

C. Retrieval: At the end of the Information Processing Model (IPM), the retrieval stage takes center stage in determining how English as a Second Language (ESL) learners understand spoken language. In order to create meaning from spoken language, this step entails the complex process of retrieving and decoding previously encoded and stored sound data from memory. The effectiveness of the memory recall strategies used by ESL students will determine how well the retrieval phase goes. These procedures entail navigating a complex network of linguistic pieces that have been encoded; each element represents a part of the auditory information that is encountered during the listening process. This phase's many and varied hurdles have an effect on how quickly and accurately ESL learners can comprehend material.

The way that knowledge is organized in ESL learners' mental repertoires is a significant component that influences the retrieval process. The way language components are categorized and linked in memory has a big impact on how quickly they may be retrieved and combined into a coherent interpretation of the spoken word. Having things organized well makes it easier to find the information you need quickly, which improves comprehension. A key factor in a successful retrieval is the strength of the brain connections. The strength of the brain networks that link various linguistic aspects impacts how easy it is for ESL learners to retrieve such pieces from stored auditory information. Stronger brain connections facilitate accurate and quick recall, but weaker connections can cause mistakes or delays in the retrieval process.

Retrieval signals play a crucial role in helping ESL students navigate the complex world of encoded and stored information. Retrieval cues are mental cues that cause associations and make it easier to remember particular language components. By carefully utilizing these indications, retrieval efficiency can be greatly increased while reducing the possibility of difficulties caused by the intricate nature of the auditory data that has been stored. For ESL learners, the difficulties they have in the retrieval phase have a significant effect on how they understand language overall. Their interaction with spoken English is impacted by their capacity to quickly and precisely recover encoded information, which enhances their comprehension in real time. To improve the listening proficiency of ESL learners, educators and researchers should take these difficulties into account while designing focused treatments that maximize retrieval processes.

A deep grasp of the cognitive mechanisms behind listening comprehension is revealed by exploring the nuances of how English as a Second Language (ESL) learners traverse the interrelated processes of encoding, storage, and retrieval within the Information Processing Model (IPM). Teachers and academics can get important insights into the unique difficulties encountered by ESL learners in decoding and understanding spoken English from this complex investigation. ESL students must adeptly overlay new phonetic patterns, intonations, and linguistic structures onto their preexisting mental models in order to proceed with the first stage of encoding. Examining this process in detail helps educators and researchers understand the cognitive demands of learning new auditory stimuli, the difficulties of bridging language gaps, and the importance of this stage in establishing the foundation for later comprehension.

Socio-Cultural Perspectives:
Understanding the many factors that affect language learning is crucial when it comes to teaching English as a second language (ESL). Theoretical frameworks Sociocultural Theory and Identity Theory provide insightful viewpoints on the intricate interactions between social, cultural, and personal elements influencing how ESL students understand spoken English. The purpose of this introduction is to provide light on the theoretical underpinnings of these frameworks by examining the complex interplay between identity building, social interactions, and cultural origins and language acquisition.

Sociocultural Theory: Vygotsky's main contribution, Sociocultural Theory, provides a deep insight into the complex relationship between sociocultural elements and cognitive development. This theoretical framework serves as a beacon of guidance when used in the context of teaching English to Second Language (ESL) students, illuminating the crucial elements that influence their ability to understand and comprehend spoken English. Fundamentally, sociocultural theory holds that a person's cognitive development is greatly influenced by their cultural background, social relationships, and environmental circumstances. Applying this theory to the field of ESL, we find that these components weave a complex web that profoundly affects students' interaction with and comprehension of spoken English. ESL students bring a wealth of cultural experiences to language activities, and this rich reservoir shapes their linguistic perspectives in a profound way. It is argued that Vygotsky's account as represented in Thought and Language (Vygotsky, 1986) needs to be thought of as consisting of two distinct aspects: first, the observations he made (or claimed to have made) and, second, the theoretical account he proposed to explain them. It is shown that some of Vygotsky's observations are problematic but that, even if they are accepted, Vygotsky's theoretical account suffers from fundamental difficulties.

Because sociocultural theory is dynamic, it invites us to explore the complex dynamics that arise when spoken language is interpreted in ESL environments. Cultural background takes on a role beyond that of a background, evolving into a dynamic force that impacts the way ESL learners interpret and experience language input. Social interactions among students in the classroom facilitate the co-construction of knowledge by enabling them to cooperatively negotiate meaning, reflecting the sociocultural settings from which they originate. The sociocultural aspects of language learning are significantly influenced by the contextual elements that surround ESL learning environments. The social and physical environments in which ESL students interact with spoken English have a significant effect on how they think. Therefore, sociocultural theory encourages researchers and educators to take into account the larger socio-environmental elements that contribute to the complex terrain of ESL learning in addition to the language aspects. Through navigating the complexities of Sociocultural Theory in ESL instruction, researchers and educators can acquire a comprehensive grasp of the sociocultural aspects that support language acquisition. With the help of this lens, stakeholders can gain a full understanding of the rich diversity found in ESL classrooms and customize teaching practices that are sensitive to cultural differences.

Identity Theory: Identity theory becomes a crucial framework for examining the complex interplay between language acquisition and identity formation, particularly in the context of teaching English as a second language (ESL). This theoretical approach introduces a nuanced layer to language acquisition by exploring the enormous impact that a changing sense of self has on ESL students' interaction with English hearing resources. ESL students' developing sense of self is a key factor in determining how they connect with English listening resources as they navigate the challenges of language acquisition. According to Identity Theory, an individual's identity actively impacts how they interact with language, rather than being a passive beneficiary of language learning factors. This reciprocal relationship between language involvement and personal identity adds a fascinating aspect to research on English as a Second Language (ESL), and it calls for researchers and educators to take into account the complex ways that people negotiate their changing identities within the language environment. The relationship between language acquisition and identity formation offers the field of ESL education a dynamic and comprehensive viewpoint. As ESL students grapple with linguistic challenges, their identity becomes a dynamic force that influences their linguistic choices, preferences, and engagement with English listening materials. The theory suggests that acknowledging and understanding this dynamic relationship is integral to cultivating an environment conducive to effective language acquisition. (Morales, D., 2024)

We can better understand the complications at play when integrating Identity Theory with ESL instruction by starting this theoretical investigation. We can learn a great deal about the cognitive and affective aspects of ESL learners' experiences by attentively analyzing how personal identity affects language engagement. This sophisticated view takes into account the larger socio-emotional factors that influence language acquisition processes in addition to linguistic ability. This investigation opens the door for well-informed teaching strategies that take into account the diversity of cultural backgrounds of students and recognize the complex interactions that exist between language, identity, and social circumstances. Teachers can use this information to design inclusive learning environments that assist ESL students' overall development in addition to their language improvement. Through the incorporation of Identity Theory ideas into ESL instruction, teachers enable students to negotiate both the complicated landscape of language acquisition and the dynamic terrain of their own identities.

Through the theoretical lenses of identity theory and sociocultural theory, ESL students' understanding of spoken English has been revealed as a complex web of influences. Sociocultural Theory emphasizes the dynamic interplay between individual experiences and sociocultural circumstances, highlighting the role of cultural background, social relationships, and contextual elements in the language learning process. However, identity theory adds another level of complication to the story of language acquisition by highlighting the close relationship between students' developing sense of self that their use of English hearing resources. The ever-changing process of language acquisition and the diversity inherent in the experiences of ESL learners are brought to light by this investigation for educators and scholars.

Linguistic Perspectives:
Two key theoretical frameworks have emerged from the investigation of language acquisition within the broad field of English as a Second Language (ESL) research: Phonological Processing and the Input Hypothesis. The purpose of this introduction is to provide light on the theoretical underpinnings of these frameworks, each of which offers unique insights into how ESL students build their listening skills. The Input Hypothesis explores the critical role of understandable input and highlights the importance of exposure to a suitable challenging spoken language, while Phonological Processing examines how ESL students negotiate the complex phonological elements of spoken English, including rhythm, stress, and intonation. When combined, these frameworks offer a sophisticated explanation of the mental operations that underlie the listening comprehension of ESL students.

Input Hypothesis: The Input Hypothesis is a theoretical construct that is fundamental to our comprehension of language learning, especially in the context of English as a Second Language (ESL). This theory, which was first put forth by Stephen Krashen, holds that a learner's ability to acquire a new language is greatly aided by the availability of understandable input that is a little bit advanced from their current level of skill. The Input Hypothesis highlights the vital function of introducing ESL students to language which challenges them while being within their knowledge and acts as a catalyst for their language development in the particular setting of listening competency.

Fundamentally, the information Hypothesis emphasizes that learners gain the most from exposure to linguistic information that is slightly above their current competency level. This suggests that in terms of listening proficiency, ESL students should interact with spoken English in a way that is somewhat challenging and pushes them over their current language barriers. The approach acknowledges the difficult balancing act of offering information that is both sufficiently challenging and understandable, creating an atmosphere that inspires students to go beyond their present level of language proficiency. When using the Input Hypothesis in ESL instruction, teachers and researchers must carefully evaluate the type of input that students get. This entails choosing listening materials carefully so as to create an environment that best facilitates language acquisition while striking the ideal balance between novelty and challenge. Given that input plays a crucial part in determining how well ESL students understand spoken English, teachers are urged to provide a wide variety of resources that meet the linguistic requirements and developmental phases of their students.

The complexities of the Input Hypothesis reveal that this theoretical framework not only guides instructional approaches but also lays a strong emphasis on how unique each language learner is. It emphasizes the dynamic aspect of language learning and challenges teachers to be aware of the unique language requirements of their students. As the Input Hypothesis suggests, giving input considerable thought is essential to establishing an atmosphere that best assists ESL students in their quest for improved listening proficiency. The Input Hypothesis, which emphasizes the critical role that understandable input plays in promoting linguistic growth, acts as a guiding principle in ESL language acquisition. By utilizing this theoretical framework in the context of listening competency, researchers and educators can acquire a deeper understanding of the complex processes that impact successful language learning.

Phonological Processing: Unlike the Input Hypothesis, Phonological Processing focuses on the complex domain of how English as a Second Language (ESL) students interact with and interpret phonological elements in spoken English. This theoretical framework centers on stress, intonation, and rhythm—three essential elements of speech communication. Phonological Processing provides a thorough examination of the difficulties and methods used by ESL students in processing spoken English by delving into the cognitive complexities that underpin how learners negotiate these phonological aspects during listening tasks. The importance of stress, intonation, and rhythm as essential elements of successful oral communication is acknowledged by phonological processing. Deciphering and interpreting these phonological elements is a task given to learners in the context of ESL listening comprehension. These features play a crucial role in the overall comprehension of spoken language. Through close examination of the phonological aspects of spoken English, researchers are able to obtain significant understanding of the cognitive processes involved in listening tasks. Researchers can better understand the intricate dynamics involved in how ESL students deal with the complexity of stress, intonation, and rhythm by using the lens of Phonological Processing study. Gaining insight into how students interpret these components will help us better understand the difficulties they face and the methods they use to interpret spoken English. This theory clarifies the complex cognitive processes that go into understanding lexical and syntactic patterns as well as the subtleties found in the phonological components of language. Phonological processing is measured behaviorally using phonological awareness, phonological memory, and rapid naming tasks. These tasks engage brain regions such as the superior temporal gyrus, inferior parietal cortex, and inferior frontal gyrus. (Wang, Jin & Booth, James, 2024)

As we commence this theoretical investigation, our main goal is to decipher the complexity of Phonological Processing. By doing this, we explore the cognitive nuances involved in decoding phonological features, moving beyond a cursory understanding of ESL listening comprehension. This more profound comprehension serves as a foundation for the creation of focused teaching methods that address the unique difficulties presented by the phonological aspects of spoken English. The knowledge gathered from this investigation is helpful to teachers who want to create the best possible language learning environments. The Phonological Processing framework's guiding principles must be incorporated into the design of interventions if teachers are to effectively address the complex phonological difficulties that ESL students encounter. The incorporation of these insights into teaching methodologies advances our knowledge of ESL listening comprehension and helps develop pedagogical strategies that improve students' ability to navigate the phonological nuances of spoken English.

An analysis of phonological processing and input hypothesis in the context of ESL listening proficiency provides a comprehensive view of language learning. The Input Hypothesis emphasizes how important it is to expose ESL students to language that is properly demanding, putting understandable input in a position to promote language growth. Phonological Processing simultaneously illuminates the cognitive mechanisms underlying proficient listening comprehension by dissecting the subtleties by which ESL students negotiate the phonological elements of stress, intonation, and rhythm in spoken English. Through combining knowledge from these frameworks, researchers and teachers can improve ESL instruction with useful tools. The concept of comprehensible input is elevated to a strategic factor in lesson preparation, and the phonological aspects of spoken English are included into instructional design as essential concerns. Strong theoretical underpinnings for evidence-based strategies that support ESL learners in their language learning process are provided by the investigation of Input Hypothesis and Phonological Processing. These frameworks are a useful resource for advancing our knowledge of language acquisition and for contributing to the current discussion about the overall growth of language learners and effective ESL education.

Pedagogical Perspectives:

Communicative Language Teaching (CLT): The effectiveness of teaching approaches is crucial in the field of English as a Second Language (ESL) pedagogy, and Communicative Language Teaching (CLT) is one well-known approach that is currently being examined. This educational viewpoint emphasizes the importance of participatory, real-world language use in a variety of settings. In the particular area of listening skills, CLT approaches evaluation becomes critical to knowing how CLT approaches support ESL students' ability to hear spoken English. The most recent and effective method of teaching second or foreign language is Language Communicative Teaching (CLT). It emphasizes interaction as both the means and the ultimate goal of learning a language. It is also referred to as "Communicative Approach". (Shittu, Morufudeen & Yusuf, Taofik, 2023)

The fundamental tenet of CLT is that language is a tool for communication, not a collection of discrete abilities. When it comes to listening skills, CLT promotes dynamic, realistic language experiences that immerse ESL students in actual communication situations. This methodology encourages researchers to investigate how well CLT approaches replicate the intricacies of real-world language use, which in turn affects ESL students' comprehension of spoken English in a variety of dynamic contexts. Examining teaching strategies that place a strong emphasis on communication, information sharing, and meaning negotiation is necessary for evaluating CLT in the context of ESL listening skills. Through the use of interactive language experiences, CLT seeks to close the gap between classroom instruction and communication in everyday situations. Researchers investigate how this instructional strategy affects the listening abilities of ESL students in an effort to determine how well CLT prepares students for real-world language interactions.

Task-Based Language Teaching (TBLT): Task-Based Language Teaching (TBLT), which emphasizes the integration of language abilities within meaningful and useful tasks, is another well-known pedagogical paradigm in ESL teaching. Specifically, TBLT serves as a central point of reference for investigating how task-based activities improve ESL students' comprehension of spoken English. Task-based Language Teaching (TBLT) offers a student-centered approach that encourages meaningful interactions and authentic language use, aligning with the growing emphasis on communicative language teaching. Researching TBLT can contribute to improving English language teaching practices by exploring innovative instructional methods. (Chen, Chuhan, 2023)

The foundation of TBLT is the idea that projects that replicate the demands of everyday communication are the best ways to integrate language acquisition. When it comes to listening skills, this means creating tasks that need pupils to understand spoken language in order to reach predetermined goals. Scholars explore the complex ways that Task-Based Language Teaching (TBLT) incorporates listening activities into more general language tasks with the goal of comprehending how this pedagogical approach affects the growth of listening competency in English as a Second Language (ESL) students.

Examining task design, interaction style, and the cognitive processes involved in understanding spoken language in relevant circumstances are all important aspects of investigating Task-Based Language Teaching (TBLT) in relation to listening abilities. TBLT attempts to improve ESL students' comprehension of, and capacity for decoding, interpreting, and responding to spoken English in real-world contexts by immersing them in meaningful activities that require efficient listening. Scholars endeavor to disentangle the subtleties of Task-Based Language Teaching's influence on the listening proficiency of ESL learners, furnishing educators with invaluable discernments for integrating task-oriented methods into a language teaching toolkit.

In summary, a wealth of information can be gained by examining pedagogical stances like Task-Based Language Teaching (TBLT) and Communicative Language Teaching (CLT) in relation to ESL listening abilities. By thoroughly analyzing these methods, researchers add to the current conversation about successful language teaching by providing teachers with research-based methods to improve ESL classrooms and develop students' improved listening skills.

Conclusion:

This comprehensive exploration highlights the crucial role of listening in English learning, particularly for ESL students facing challenges in a foreign language and cultural context. The essay delves into Cognitive Perspectives, examining Cognitive Load Theory (CLT) and the Information Processing Model (IPM). CLT emphasizes the cognitive demands on ESL students, addressing vocabulary, working memory, and attention, while IPM dissects encoding, storage, and retrieval processes during comprehension. The analysis within CLT reveals challenges in decoding new elements, emphasizing working memory constraints and attention allocation. IPM details the complexities of encoding unfamiliar phonetic patterns onto mental frameworks and the transient nature of working memory during storage. Recognizing these cognitive processes is crucial for developing tailored instructional strategies and evidence-based pedagogical practices that align with ESL learners' cognitive architecture.

The exploration also spans socio-cultural, linguistic, and pedagogical perspectives. Sociocultural Theory and Identity Theory unveil the dynamic interplay of cultural background, social interactions, and personal identity in shaping ESL students' understanding. The linguistic perspectives of Input Hypothesis and Phonological Processing provide insights into exposing students to challenging language and understanding phonological elements in spoken English. The examination of pedagogical perspectives, including Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT), underscores their roles in fostering ESL students' listening skills. CLT emphasizes real-world language use, while TBLT integrates language skills into meaningful tasks. Incorporating these multifaceted perspectives into ESL instruction is essential for tailoring interventions that align with diverse needs, contributing to evidence-based practices and fostering growth in language acquisition and effective listening comprehension.

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A study of methods to enrich vocabulary of English language for the students of upper primary school.

Alkaben P. Diwan
Ph D Student of Education Department,
Gujarat University. Gujarat
Email - alka170585@gmail.com

Abstract : *The paper suggests effective methods or remedies to improve the vocabulary of English language for the students of upper primary school. The researcher suggests Different methods for vocabulary teaching and also the importance of a teaching vocabulary of English language. The study makes an important contribution to the existence research as it recommends focused vocabulary teaching by suggestive various techniques for teaching vocabulary. Without vocabulary knowledge any language skill cannot be developed.*

INTRODUCTION :

Vocabulary is generally defined as the knowledge of the words and word meaning. Vocabulary is useful for developing knowledge and skills in multiple aspects of language. It is directly related to the school achievement. To learn any language we need to have excellent knowledge of vocabulary. English vocabulary has a remarkable range, flexibility and adaptability. English language is learn as a Second language in upper primary schools of Gujarati medium. This paper helps students to improve vocabulary easily.

"Vocabulary referred to the collection of word known by individual or by a large group of people."

- Marriam Webster online dictionary

Objectives of study :

* Make students to learn English subject with more interest.

*Explain the importance of vocabulary of English language for the students of upper primary school.

* suggest different methods to enrich vocabulary of English language for the students of upper primary school.

Importance of teaching vocabulary

Vocabulary is important for communication. Rich vocabulary helps learners to learn language easily. so teachers must help their students to learn words that are most useful to them.

According to Cameron(2001) in language teaching term, the developedment of words, their meaning and the links between them will be covered under the term vocabulary.

Methods of teaching vocabulary :

Here, there are some easy methods to enrich vocabulary of students of Gujarati medium of upper primary.

1. Develop a habit of reading

Reading is one of the most basics skill student required to learn to be successful like any other skils. Reading habit also need is time and their dedication to develop.

There are some points.

*Read things that make you laugh.

*Discuss about what children read.

*Find their interest and follow it

*Motivate to read regularly.

2. Use a dictionary to understand meaning of the word.

Dictionary can help to understand unfamiliar words and improve your communication skill. Dictionary may also give other information about words such as word type and word origin. Teachers from upper primary Schools must tell their students to use a dictionary that given at the last pages of their English textbook of Gujarati medium.

3. To make students own dictionary

Students learn best from their personal experience. As children are writing, they need to know how to find the words from dictionary. Standard dictionary have so many words. it can be challenging for students of upper primary to use the dictionary appropriately .so it is best to create a dictionary for each individual student to use. Since Student dictionary is self generated students are easily use their dictionary. Students can find words from the daily routine list of things used in home ,school ,classroom ,compass box ,bag, on playground and place they visit often.

4. Play word game

As they play ,student can connect with the new words. You shall notice their confidence increase and its positive effect in their class work and also in there examination results.

There are some benefits of word games.

Playing word games make kids happy and help them to concrete. it develop their vocabulary and memory .There are few words games especially for upper primary student learn English as second language.

1. Words with in words

This game proves excellent for teachers in classrooms. Write out a long word on the board, set a time for 3 or 5 minutes and challenge students to come up with a many as words ,they can using only the letters in given word.

For example: TWINE

Answer: ten, wine,we,tie,in, net

2. Story telling word by word

For example: player 1: big

Player 2: big, forest

Player 3: big, forest ,animal

With the use of this kind of words students can make sentence and complete the story.

3. Word tree

Word trees are good ways to learning vocabulary. Student draw image of tree and write words of the topic given by the teacher.

For example :months in a year.

4. Word puzzle

This word game we can find in upper primary textbooks. Word puzzles are generally used as a source of entertainment. It is spelling game where you make word out of given letters.

5. Word chain

This game is a great for challenging your vocabulary skill in a fun and creative way.It is a game in which player comes up with the word that begins with the letter or letter that the previous word end with.

For example: lion, number ,Rose, egg ,good............

Conclusion

There are some points that researcher have noticed during the work.

*Teacher must take advantage of students first language.

*Repetition is necessary to enrich vocabulary.

*Teacher teach Vocabulary as a active participation in classroom tasks.

*Computer technology can be used effectively to help to teach vocabulary.

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Exploring the Vedas: Ancient Scriptures, Wisdom, and Relevance: An Analytic Discussion

Nabanita Barman
Assistant Professor of Sanskrit
Dumdum Motijheel College
Email - egra.nabanita@gmail.com

Abstract: *The Vedas hold a significant place in Hinduism. They are considered the oldest scriptures in the world and are believed to be divinely revealed. The word "Veda" means knowledge or wisdom in Sanskrit. This article provides a detailed exploration of the Vedas, discussing their origin, content, and relevance in today's world. It also sheds light on the different types of Vedic literature, such as the samhitas, brahmanas, aranyakas, and upanishads. Furthermore, the article delves into the various branches of Vedic knowledge, including rituals, philosophy, grammar, and mathematics. The article concludes by emphasizing the continued importance of the Vedas in shaping Hindu religious practices, spiritual beliefs, and cultural traditions.*

Keywords: *Veda, Hinduism, scriptures, divinely revealed, knowledge, samhitas, brahmanas, aranyakas, upanishads, rituals, philosophy, grammar, mathematics.*

INTRODUCTION:

The Vedas, often referred to as the sacred scriptures of Hinduism, are considered the oldest religious texts in the world. They are believed to be of divine origin, revealed directly by God to the ancient Indian sages. The term "Veda" is derived from the Sanskrit word "Vid" which means knowledge or wisdom. The Vedas encompass various aspects of life, including spiritual teachings, cosmology, rituals, philosophy, grammar, and mathematics. This article aims to provide an in-depth understanding of the Vedas, exploring their origin, content, and relevance to contemporary Hindu practices.

The Vedas, ancient scriptures of unparalleled significance, are among the oldest religious texts known to humanity. Originating in the Indian subcontinent, these sacred texts have not only withstood the test of time but have also profoundly influenced the spiritual, cultural, and philosophical landscape of India and beyond. In this exploration, we embark on a journey to unravel the profound wisdom encapsulated within the Vedas, delving into their historical context, philosophical insights, and enduring relevance in the modern world.

The Vedas, composed over several millennia during the Vedic period, serve as the foundational scriptures of Hinduism. They were transmitted orally through generations of priestly families known as Brahmins, who meticulously preserved and propagated the sacred knowledge through chanting and memorization. Beyond their ritualistic significance, the Vedas offer profound philosophical insights into the nature of existence, the cosmos, and the human condition. Concepts such as Brahman, the ultimate reality, karma, the law of cause and effect, and dharma, the moral order, are central to Vedic philosophy, providing a comprehensive framework for understanding the universe and one's place within it.

Despite being thousands of years old, the Vedas continue to exert a profound influence on contemporary Hinduism and Indian culture. Rituals and ceremonies inspired by Vedic tradition are still performed in temples and households across India, maintaining a connection to ancient spiritual heritage. Moreover, the ethical teachings of the Vedas provide a moral compass for navigating the complexities of modern society, emphasizing principles such as compassion, righteousness, and social justice.

Origin and Preservation of the Vedas:

The origin of the Vedas is shrouded in mystery, with different theories and speculations proposed by scholars. According to Hindu tradition, the Vedas are eternal and have no human authorship. They are believed to have been revealed to the sages known as Rishis in a state of deep meditation or divine inspiration. The Rishis then passed down these teachings orally through generations before they were eventually compiled in written form.

The preservation of the Vedas has been a remarkable feat in itself. As the ancient Indian society primarily relied on an oral tradition, the Vedas were transmitted meticulously from teacher to student through an uninterrupted lineage of gurus (teachers) and shishyas (disciples). This oral tradition ensured the accurate preservation of the Vedas, with utmost precision in chanting, accent, pronunciation, and melody. The Vedas were later transcribed into written form, but the oral tradition remains vital in Vedic recitations and rituals.

Classification and Content of the Vedas:

The Vedas are classified into four main texts, known as the Rigveda, Yajurveda, Samaveda, and Atharvaveda. Each Veda consists of several sections, including samhitas, brahmanas, aranyakas, and upanishads, which collectively provide a comprehensive understanding of Vedic knowledge.

The samhitas are the core hymns of the Vedas and form the oldest and most revered part of the scriptures. The Rigveda Samhita, the oldest among them, contains hymns in praise of various gods and goddesses. The Yajurveda Samhita consists of hymns for sacrificial rituals, while the Samaveda Samhita contains chants and melodies used in rituals. The Atharvaveda Samhita encompasses hymns dealing with practical aspects of life, such as healing, magic, and social customs.

The brahmanas are prose texts that provide explanations and instructions for performing rituals described in the samhitas. They offer insights into the symbolic significance of rituals and elaborate on their religious and philosophical implications. The aranyakas, which means "forest texts," are a continuation of the brahmanas and serve as a bridge between ritualistic and contemplative practices. The aranyakas contain meditative and philosophical teachings and are considered to be the beginning of spiritual discourse in the Vedas.

The upanishads, meaning "sitting near" or "sitting down near the feet of a teacher," are philosophical treatises that expound upon profound spiritual and metaphysical concepts. They discuss the nature of reality, the self, the nature of God, and the path to liberation or Moksha. The upanishads form the culmination of Vedic thought and are considered the foundation of Hindu philosophy and spirituality.

Branches of Vedic Knowledge:

The Vedas encompass a wide range of knowledge beyond religious rituals and spiritual teachings. Various branches of Vedic knowledge, known as Vedangas, have developed over time to study and explore different aspects of Vedic wisdom. One of the most important Vedangas is Shiksha, which deals with the phonetics and pronunciation of Vedic chanting. Shiksha ensures the correct recitation of Vedic mantras and includes rules for proper pronunciation, accents, pitch, and melody. Another branch is Vyakarana, which is the study of grammar and etymology. Vyakarana analyzes the structure, rules, and usage of the Sanskrit language, enabling a deeper understanding of Vedic texts.

Chandas is the branch of Vedic knowledge that focuses on poetic meters and patterns. It explores the rhythmic and melodic aspects of Vedic verses and identifies the various poetic meters employed in the samhitas. Nirukta is the branch that deals with etymology and the interpretation of Vedic words and concepts. It elucidates the symbolic meanings and hidden layers of wisdom embedded in Vedic terminology.

Jyotisha, the branch of Vedic knowledge associated with astrology and astronomy, studies the celestial bodies and their influence on human life. It helps determine auspicious times for rituals and provides insights into the cosmic order. Finally, Kalpa is the branch that deals with rituals, ceremonies, and codes of conduct. It elucidates the detailed procedures for performing Vedic rituals, including fire ceremonies, sacrifices, and sacraments.

Historical Significance of the Vedas

The Vedas are believed to have been composed over several millennia, beginning around 1500 BCE during the Vedic period. This era marked the arrival of Indo-Aryan tribes into the Indian subcontinent, bringing with them their language, culture, and religious practices. The Vedas were transmitted orally through generations of priestly families known as Brahmins, who meticulously preserved and passed down the sacred knowledge through chanting and memorization.

Scholars divide the Vedas into four main texts: the Rigveda, Samaveda, Yajurveda, and Atharvaveda. Each Veda comprises hymns, rituals, and philosophical discourses, collectively forming the foundation of Hinduism. The Rigveda, the oldest of the four, contains hymns dedicated to various deities such as Agni, Indra, and Soma, reflecting the early Indo-Aryan religious practices. The Samaveda emphasizes musical chants and melodies derived from Rigvedic hymns, while the Yajurveda provides prose and verse formulas for sacrificial rituals. The Atharvaveda, distinct from the others, contains spells and incantations for various purposes, including healing and protection.

Philosophical Insights of the Vedas

Beyond their ritualistic aspects, the Vedas offer profound philosophical insights into the nature of existence, the cosmos, and the human condition. Central to Vedic philosophy is the concept of Brahman, the ultimate reality underlying all existence. Brahman is described as the source and sustainer of the universe, transcending all dualities and limitations. The Vedas also expound the doctrine of karma, the law of cause and effect governing the cycle of birth, death, and rebirth (samsara). According to this doctrine, one's actions (karma) determine one's future experiences and ultimate destiny.

Ethical teachings are another cornerstone of Vedic philosophy, emphasizing principles such as truthfulness (satya), righteousness (dharma), and compassion (karuna). Dharma, in particular, is considered the moral and cosmic order governing human conduct and societal harmony. Upholding dharma is seen as essential for maintaining balance in the universe and attaining spiritual liberation (moksha) from the cycle of samsara

Relevance of the Vedas in Modern Times:

Despite being ancient texts, the Vedas continue to be highly relevant in contemporary Hindu practices. The rituals, recitations, and philosophical teachings of the Vedas are still an integral part of religious ceremonies, festivals, and spiritual pursuits in Hinduism. Vedic chanting is practiced widely, not only for its spiritual significance but also for its therapeutic benefits. The therapeutic effects of Vedic chanting have gained recognition in modern scientific research, with studies exploring the impact of Vedic mantras on mental well-being and stress reduction.

Moreover, Vedic philosophy and spirituality have transcended religious boundaries and have inspired seekers of truth and scholars around the world. The concepts of self-realization, the oneness of all beings, and the path to inner enlightenment are universal and applicable to people of any faith or no faith. Many philosophical and spiritual schools have been influenced by Vedic thought, including Advaita Vedanta, which recognizes the essential unity of all existence.

The Vedas have also contributed to the development of various disciplines, such as linguistics, mathematics, and astronomy. The scientific knowledge contained within the Vedas, such as the accurate calculation of planetary motions and the concept of zero, has been recognized by scholars for its advancements in these fields. Scholars continue to study the Vedas to unravel their scientific and mathematical secrets, gaining insights into the intellectual prowess of ancient Indian civilization.

Conclusion :

In conclusion, the Vedas stand as timeless repositories of ancient wisdom, offering profound insights into the nature of existence, the cosmos, and the human condition. Despite being thousands of years old, these scriptures remain relevant and influential in modern times, shaping the beliefs, practices, and worldview of millions of people around the world. By exploring the Vedas, we gain a deeper understanding of our spiritual heritage and the enduring quest for truth and enlightenment.

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Title- “Rediscovering Art and Culture of Vidharbha”

Abstract: Vidharbha has a long history of cultural and artistic practices, which have been influenced by its geographical location and by various cultural practices. This paper explores the rich and diverse culture of Vidharbha. This paper provides an overview of different art forms and crafts that have been developed in Vidharbha. It includes various art forms made of bamboo and coconut husk. The researcher has applied the cultural theory. It explores the social and cultural significance of each, as well as the methods, supplies, and motifs employed in these arts and crafts. The study also examines the difficulties faced by artisans and craftspeople in Vidarbha, including how modernity and globalization have affected them.

Keywords: Vidharbha, Nagpur, Art, Craft, Culture

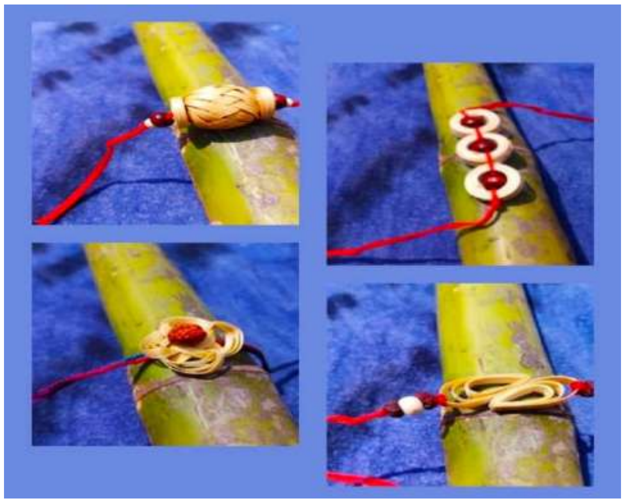
Nagpur is one of the most prominent cities of Maharashtra. It is also considered one of the smart and important cities of Maharashtra. The city was founded in 1703 by the Gonds King Bakht Buland Shah of Deogarh and later became a part of the Maratha Empire under the royal Bhonsale dynasty. The place is also well known for its Nagpur oranges and hence known as the Orange City for its large-scale trading of the fruit widely cultivated in the region. Nagpur was previously known as ‘Fanindrapura’, a name derived from the word 'Fana' meaning hood of a cobra. The place holds a tremendous political heritage famous for the strong Dalit Buddhist movements. Because of the cosmopolitan nature now, the city's current culture is primarily influenced by various parts of the country. However, it mainly rests on the Vidarbha way of living. Nagpur is particularly acclaimed for the folk dances and songs they have inherited from their ancestors.

Tribal Lady Bottle Craft Theme

The tribal lady bottle is an innovative artwork made of a small sauce bottle and white M-SEAL. The product is exclusively developed to recognize the importance of our tribal communities who treasures age-old cultures and ethnicities. The bottle holds the shape of a tribal woman dressed in their tribal attire and jewelry. The reason behind the initiative is to exhibit their culture and in this way get more people aware of the Maharashtrian tribes. Mrs. Vaishali H. Kawre is an artisan from Nagpur who preserves this unique art. She is the owner cum trainer at the Creative Craft, Nagpur, who runs the art center for 22 years.

Durable Bamboos of Vidarbha

Bamboo India – A Social Entrepreneurship, an India Based Startup by Shinde Family was started on 15 Aug 2016 with a primary aim to change the bamboo perception from the Poor Man’s Timber to Wise Man’s Timber by providing plastic products replacement using innovative bamboo products. It Aims “It’s not for the income but for the outcome”.



Brushes **Speakers** **Rakhis**

Further, Meenakshi Wadke of Chandrapur district prepares Bamboo Rakhi. Her aim is to enhance bamboo usage over plastic. Plastic is a non-biodegradable and one of the major causes of pollution today.

Her intention is to protect the environment and contribute to a sustainable, pollution-free environment.

China is the world's largest producer and exporter of plastic goods, making up roughly 30% of the global total. It’s better to use Indian eco-friendly products.

Why choose Bamboo?

- Bamboo is the FASTEST growing land plant in the world.
- Bamboo, a plant which holds utmost importance in every culture serves as a perfect replacement for age-old materials that harm the mother earth. Use of Bamboo-made

products creates a win-win situation for both: the nature & the mankind, and this is exactly what we all are striving for.

- Bamboo is a renewable and very fast-growing plant. It can be used for a variety of purposes including clothes, fuel, and food.
- It produces more oxygen than trees. It grows in both tropical ad temperate environments. It doesn't require pesticides or herbicides to grow well.
- Bamboo is strong and durable. Its cultivation is natural and doesn't harm the environment. Bamboo for the same reasons is known as 'green steel' for its strength and versatility.
- The antimicrobial bio-agent known as 'Bamboo Kun', which is present in bamboo fiber, is what gives bamboo its inherent antibacterial qualities. This makes bamboo the ideal plant for naturally hygienic products like bamboo straws and cutlery, keeping them sterile and fresh and preventing bacteria and pathogens from forming on bamboo products.

Why bamboo is better than plastic?

To replace natural materials like ivory and tortoiseshell, plastic was first developed in the early 1900s. However, the production of plastic has increased drastically since then. Only steel and cement are produced in greater quantities than plastic. Over the next ten years, that production is predicted to rise by 40%. Bamboo is natural and reusable and is completely sustainable for the planet. Therefore, it is our responsibility to create a healthy and positive environment for our future generations.

Bhandara's sustainable coconut husk

COCONUT CLOCK

Bhandara district of Vidarbha region produces things from the waste of Coconut. The main purpose of using coconut is to utilize waste products and control pollution.

Coconut husk is sustainable:
There are a lot of growing methods available that aren't at all environmentally friendly. However, if you want to minimize your impact on the environment, coconut husk goods are a wise choice. That's because coconuts are a resource that can be readily renewed.

One coconut tree has the capacity to yield up to 150 coconuts per year. Therefore, a steady supply of raw materials is available every year to manufacturers of products made from coconut coir.

Additionally, coconut trees normally don't need pesticides or other chemicals to stay healthy. You may feel good about your choice to support the environment when you buy products made from coconut. We should switch to eco-friendly ways to reduce the use of harmful chemicals and make the environment sustainable.

Visarga Vindhyan Mandal

Origin:
Dr. Vijay L. Ghugey is a founder of "Nisarg, Vidnyan" (NiViM) in Nagpur. It is also known as Visarga Vindhyan Mandal. Founded on 14th November 1991. It is based on the Panchamabhutas concept, but here the five elements are:

1. Jal (water)
2. Jameen (Land)
3. Jungle (Forest)
4. Janvar (Animals)

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5. Jan Jeevan (Civil society)

Significance:
The main purpose of this institution is to manage natural resources through natural processes. It is based on ancient knowledge of the Vedas.

They want to involve everything and everybody from cattle to wildlife and protect mother earth from all harmful things. They work on economical and emotional factors and give ecologically friendly products. Examples, Cow dung diyas, Lakshmi murti,

One of the other reasons for establishing such an institution was to increase livelihood for future benefit. Today, the women's division has created around 16 products including a gift hamper worth Rs 600/-. It includes soaps, herbal pesticides for gardening, and Jeeva Amrut, which has good bacteria for nourishing soil.

This institute completely works for the benefit of the people. It works in both the health and financial areas of people. Cow dung is a rich fertilizer and efficient fuel. An increase in the use of cow dung products will definitely lead to a sustainable environment.

WASTE PAPER PRODUCTS

India's largest manufacturer and exporter of paper is located in Chandrapur District. Bhandara district recycles paper and prepare products which are ecofriendly and biodegradable. The significance of this product is to save environment and generate employment for the people.

Benefits of paper products:

The main benefit of paper is that it decomposes more quickly than plastic products. Paper is created from fibers that are primarily derived from plant sources, including cellulose, hemicellulose, and lignin. This indicates that paper items will naturally degrade in a few weeks (assuming they are not contaminated with glue, stickers, or other plastic pieces).

Products made of paper can also be recycled. Newspapers, periodicals, catalogs, junk mail, printer paper, envelopes, present wrapping paper, cardboard, and even paper egg cartons are among the many paper goods that can be recycled.

Even though recycling still needs water and energy, it uses much less of both than making new paper. Paper made from recycled resources is produced with roughly a third less energy and with about 50% less water than virgin paper. Additionally, substantially less greenhouse gas is released during the manufacture of recycled paper.

There are many employments worldwide created by the paper business. Nearly 200.000 individuals work in the sector in the EU alone. The demand for paper products is still high, and there are still plenty of job opportunities available, even though this number is gradually declining as a result of numerous automations.

JEWELLERY BOXES

In India as well, jewellery boxes have a lengthy and rich history. Jewelry played a significant role in ancient Indian society and was frequently worn by both sexes. They employed a variety of containers and boxes made of materials like gold, silver, ivory, and sandalwood to keep their priceless jewellery safe.

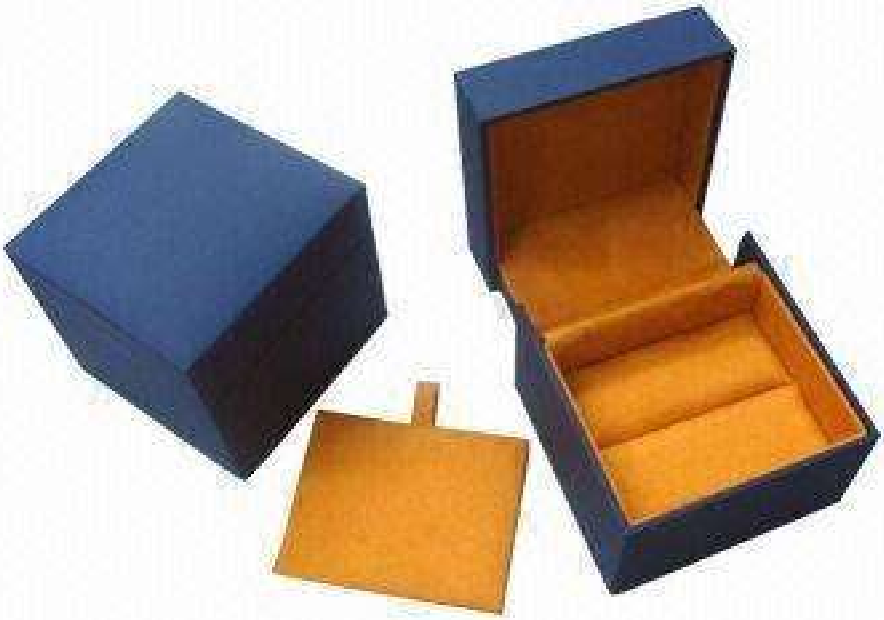
The development of jewellery boxes took place during the Mughal era in India, which spanned from the 16th to the 18th century. Jewelry boxes were frequently fashioned of gold or silver and embellished with exquisite engravings, priceless stones, and pearls when they were owned by the Mughal emperors and their nobility, who were renowned for their love of luxury and fine craftsmanship.

Jewelry boxes developed during the British Raj era in the nineteenth century.

In India today, jewellery boxes are still highly prized and frequently created by experienced artisans using time-honored methods. They come in a variety of materials, including wood, leather, cloth, and precious metals and stones. In India, many jewellery boxes are still constructed with intricate designs and motifs and are frequently used as beautiful items for homes in addition to serving as places to keep jewels.

Jewelry boxes were originally manufactured in the Mahal area of Nagpur. Boxes supplied to the south are from the Nagpur region. Initially, people used paper to prepare boxes. Later, they used cardboard for packing jewelry. Now, they mainly use plastic for fabrication.

They were made according to the shape of the jewelry. Thus, we had a variety of shapes and sizes in jewelry boxes. They were heart-shaped, square-shaped, Diamond shaped, triangle and circular-shaped. Additionally, they use to wrap them with different velvet and silk cloths, which added to its refinery.



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Lavina Keswani

(M.A English,NET)

R.S Mundle Dharampeth Arts and

Commerce college

Research Scholar

Dr. Manjushree Sardeshpande

Head of Department, English

R.S Mundle Dharampeth Arts and

Commerce college

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Comparative Study Of Pricing Structure Of Fmcg In Traditional Commerce And E Commerce For Sustainability And Growth,In Western Vidarbh Region Over Last Decade

Dr.A.P.Mohta

Guide: Associate Professor Smt.Kesharbai Lahoti Mahavidyalaya ,Amravati

Rachna A.Rathi

Researcher :.ProfessorSmt.Kesharbai Lahoti Mahavidyalaya ,Amravati

Comparative study of pricing structure of FMCG in traditional commerce and E commerce for

Abstract :

FMCG sales consumes up for more than half of all customer expenses. More than 50% of what consumers spend is digested by FMCG goods. But, on the contrary, in spite of the large amount of money that a consumer spends on grocery goods every quarterly, FMCG organizations profit margins are very low. FMCG pricing strategy alteration is existing due to FMCG channel strategy and go to promote process. Most FMCG pricing tactic are till time focused on an conservative dysfunctional relationship with their retail clientele. Upto a certain extent, most primary FMCG suppliers have not yet implemented a (D2M) direct to market, online conduit strategy so as to hand out a swiftly growing buyer base which at the moment is around 20 to 30 % of the total sales.

Key words : FMCG, Pricing, Trends, Growth ,Sustainability

Introduction:

Multiple reasons for the Price Growth can be quoted in the last decade, Government policies, Globalization, Technological Advent can be identified as the source of the pricehike of FMCG. This hike in the price is found more in Traditional way of commerce as compared to the E-commerce. The FMCG products are sold at a record low of 60% on the electronic platform whereas the local stores don't give any Price Discounts. Few discounted FMCG 's can be seen in Mega and Super stores, but they still can't compete with Online Prices of these daily need Products. The problem arises when the consumer is not technologically advanced and is not able to buy Products using Electronic Media. Another point to understand here is that this kind of Price Variation is Destroying the Core of Local Business. Hence if a change in Pricing structure can be brought, which can be beneficial to both the ends i.e., consumer and the seller in FMCG sector, what could be the possibilitiesof changes in it.It can be fairlysaid that,60-70% of all FMCG sales for key sellers even today prefer , brick-and-mortar supermarket pathways; and others prefer online option.Direct to market sales using online is still a new concept in FMCG sector and that too specifically in the sub-urban areas like the sample taken here that is western vidarbh region. The game changers in FMCG sectors are still believing in old fashioned techniques of selling to win major contracts with their supermarket clientele as against the data and analytics on pricing and consumer trends. This definitely indicates that FMCG suppliers are usually commercially led organizations rather than pricing organizations, due to the wide deviation in B2B pricing strategy ensuing unrestricted pricing. Suppliers are confined by their own obsolete direct strategy and sales based pricing approach hence trade customers can't get the shopper data and pricing insights which is needed from suppliers of the said category because they just don't have it.

Traditional Commerce in India

Practice of trade and commerce in India is not a new concept at all, Starting from the Barter system to inculcation of gold coins in exchange of goods to conversion of gold into steel coins over a long period of time can be considered as the slow evolution of Trade and commerce in India.Hence here time frame consideration has been taken after 1947, Then Indian trade was badly in need of good amount of reforms in the form of economic steadiness so as to make sure that the countries ongoing development and growth in all the uphold sectors of trade and Commerce could take place. Amongst the competing developing Nations the growth scale during the past five decades of India has been exceptionally unlike many of the east and Southeast Asian neighboring Countries. India did not grow at a miracle rate in the in the trade which acceded to more than 6% and reach as high as 10% not like Africa and Latin America did it safe for periods of prolonged stagnation or decline for three to five decades Indian economy grew steadily at a so-called rate of 3 and half percent year in in the economic growth of trade and Commerce.

Emergence of E- commerce in India

The notion of e-commerce first officially came forward in 1991, a point in time when internet basically did not even exist in our nation India. Even Globally, handful could comprehend that the act of trading and selling goods and services via the internet, would be as extensively accepted, as it is accepted today. By the late '90s, masses became aware of this fixation called the internet, but for the mainstream, it still was a luxury which they felt they did not predominantly need. In an accurate manner in India though, it was at the advent of 2002, when the IRCTC introduced an online reservation system, that the community broadly acknowledged the internet as something useful, and by that time a company named Amazon, was already undergoing the process of creation of History in the US.

The first real mile stone towards setting off the e-commerce plane in India was possibly the conception of Flipkart, when two engineers from IIT Delhi determined to sell books online from Bengaluru. It was a business idea not which was not too dissimilar to that of Amazon. A decade later, US retail giants, Walmart, acquired their business in a US$ 16 billion-dollar deal, after a brutal war of bidding with none other than Amazon and from that instance. Both entrepreneurs and the audiences in India were slowly commencing to realize the potentialities of e-commerce.

Offline and Online Shopping in India

Shopping is an everyday occurrence. Some people get the necessities from shopping, while others get more. It is viewed as a way to relieve stress, to fulfil a mental desire, or to add some flavour to the mechanical way of life. Shopping is likely one of the oldest terms used to describe what we have all done over the years. However, in ancient times, the terms trading, bartering, and possibly even market would have been used. So, what does traditional shopping have to offer now that the internet has made a larger and more appealing market available to current consumers.

There are two types of shopping in general: traditional shopping and online shopping. Because of the prevalence of computers, more and more people would 'go shopping via the Internet nowadays. When you type in one word, thousands of items will appear on the screen based on your selection. There's no need to wade across a long road and push through hordes of people to get a pair of fancy shoes. With a single keystroke, you can make your selection and the goods will be delivered right away. Online shopping has become an increasingly common part of modern life. Its popularity can be attributed to the fact that convenience is highly valued in today's society.

The Western Vidarbh Region

The Western Vidarbha region i.e. Amravati Administrative region comprising of five districts namely Amravati, Akola, Washim, Buldana and Yawatmal are the key areas of which the decade over study here done to understand the Comparative nature of Pricing Structure of FMCG goods.

The Pricing structure

A pricing structure specifies and organizes the prices for your company's goods and services. The goal is to charge a rate that is consistent with your pricing strategy while balancing profits with what the market will bear in order to avoid overcharging customers.

A pricing structure prices products and services in such a way that customers will buy them. For example, you could provide a discount if customers purchase multiple products.

Several pricing structures exist. These are common ones:

graph 1.1

- It is clear from this table that the FMCG industry , faces immense challenges like coping with the changes, Quality assurance, making Product available , delays in execution, and skill pitfalls, these become the major factors that deject FMCGs from converting offline customer to online database and the associated costing of preparation and enabling teams to deliver digital alteration **Flat rate:** You choose a single price for your offerings and that's it. This works well if you only offer one product or service or if you charge a fixed hourly rate.

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- **Tiered pricing is a popular choice.** You determine different product prices based on their value. The higher the price, the higher the value. A software product is an example. The basic version is free, but if you want more features, you must upgrade and pay more money.
- **Pay per use:** With this pricing structure, you are charged based on how much of your offering is used. One common example is electricity. The more electricity you use; the more money you pay.
- **Razor-blade pricing:** This approach is known as "razor-and-blade" pricing because razor blades are used to demonstrate how the model works. You sell a core product, the razor, and then profit from the sale of complementary products, razorblades.
- **Prices are dynamic:** Your competitors' prices may change. As suppliers raise their prices, your costs rise. In this fast-paced environment, the pricing structure keeps you organized.

A solid pricing structure is essential for increasing sales and profit. If your pricing structure is overly simplistic or lacks price controls, especially in B2B sales, you will end up with prices that are all over the place.

- **Market Launch Pricing**

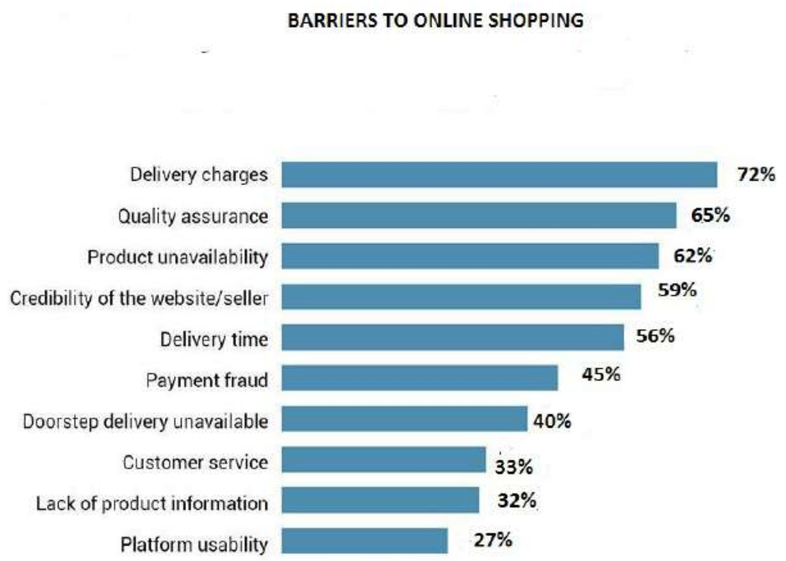
Setting the right prices when launching into new markets is often a challenge in FMCG/CPG companies.

Significance of Comparative study of Pricing structure of online and offline shopping :

- FMCG pricing strategy is very tactical and utilization of trade spending with effectiveness is a must in both offline and online shopping

In terms of producing more profitable sales or capitalizing on innovation of products. All the possible offers that a company gives to Retailers and Retailers to end Consumers eventually is a cost which directly adds up in the final pricing, which has been seen does not capitalize huge profits but attract a lot of consumer both offline and online .On an average, it can be seen that more than 30 per cent of the price that clients pay for a merchandise goes to retailers in the form of buy and sell deals. Also a huge price deviation amongst categories gives retailers ample room to discount products further which eventually cuts FMCG suppliers' profits and undermines finest brands. Especially, when prices go down the prices expected ,the consumers are ready to pay .Many FMCG companies have tried to neutralize trade spend for improvable of the situation with retailers but extremely few have taken a all-inclusive advance to stabilize trade spend.

The **biggest barriers to digital transformation based on the survey are:**



Comparative Study of Pricing Structure of Goods between Traditional Commerce and E-commerce in Western Vidrabh from 2010 to 2019" (with special reference to select FMCG goods) *the findings are based on Researchers study of the topic*

outcomes.

FMCG Can double their pricing power – Even In a Depressed Market by optimizing both channels online and offline eventually

The most sought after challenge is that FMCGs key suppliers face is sustainable price optimization. Locating a price that will increase infiltration and sales expansion is not an easy job for FMCG organizations. Especially for those who are attached to cost-plus pricing and sales led price consultation. However, there are abundant pricing techniques that FMCG sales and pricing strategist can use to enhance the company to twofold their pricing supremacy even in dejected markets wheather it be online or offline shopping.

Some key factors that resemble both online and offline pricing criteria are :

Customer willingness-to-pay in online and offline market

While pricing a product or service, it is utmost important to understand customer's willingness-to-pay. Be it an online or a an offline Market, clientele have a minimum and maximum price fixated in their minds that they are willing to pay for a product or service. If the value of the product is nearer to the customer's reference price, the consumers hesitation to purchase is lower. On the contrary, If customer is ready to pay more for the product than it is a indication of their reference point that, this will take added investment in selling, advertising or promotions, in both online and offline market.

Customer value-drivers in online and offline Market

Significance of Value drivers is that it is unique motivator to clientele who have in their minds when they buy products. As an FMCG company, want to recognize the exclusive reasons/drivers retailer patrons and end clients and shoppers who buy these products. Not just the features or benefits of products, but also the reasons why shoppers buy your goods .

Price upward trends in online and offfline markets :-

Prices should not be preset or based on cost plus methodology. In order to keep profits, FMCG companies should increase their product prices at least once annually. It is best practice to hoist prices frequently so retailers get used to the new model. It specially benefits them economically and customers respond well. However, all price rises have to be optimized including contest, sales trends, price rise, cost of manufacture, shipment, consumer insight, value driver analysis, product modernization and brand positioning.

Promotions tactics for online and offline Seller

Identifying consumers' probable response to dissimilar promotional methods or price cut levels, and optimize on the whole income. Augmented promotions can raze out value not create it. The reason being, sometimes the boost in volume does not pay off for the price drop. Promotions that just shifts-share on timely basis do not enhance consumption. Rather, extensive promotions might lean to result in lower boundary for the retailer and manufacturer.

Implications

1. Trade spend directly proportional to pricing strategy in online market whereas in go-to-market it depends on buyers execution processes particularly in all the towns of western Vidarbh region.
2. Changing one or two elements of trade spend might create deviation in consumer buying behavior in offline Market particularly in Akola, Yeotmal, Buldhana but in Online Market consumers expect long-lasting results with pricing strategy adopted due to trade spend particularly in Amravati district.
3. Consumers are responding differently to prices as a result of the crisis in both online as well as offline markets in all the towns viz.,Amravati,Akola,Washim,Buldhana,Yeotmal. Grocers, wholesalers, expediency stores needs to cautiously refine their pricing strategies to build and confine value based customer whereas the mediocre as are dropped out due to direct selling on online channels ,the online players just need to focus on discounted pricing.
4. Smaller FMCG suppliers and new entrants are leading the way with online capability in pricing(Amravati particularly being bigger in size) whereas leading offline suppliers are lagging behind in many aspects particularly in Amravati.
5. Smaller brands now symbolize almost 1/3 rd of the FMCG industry as they have used technology in smaller scale to their advantage and also have an online ability that pass over many leading FMCG suppliers. This is found particularly in all the towns viz.,Amravati,Akola,Washim ,Buldhana,

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Yeotmal,as the paying capacity on an average is quite low as compared to established FMCG products.

6. Use the customer price point, rather than the wholesales price (current practice) to compel all successive discounting to the retailer will yield more profit in offline Markets,as compared to online markets.

7. Sales should be negotiating terms with retailers based on the net prices realised after all discounts and promotions,this is technically possible in offline Markets whereas Online markets already have supreme discounted price to attract the consumers in complete western Vidrabh region – as this is a more pragmatic picture of abundance for the retail and manufacturer.

Reference :

Graph 1.1: based on the response collected while surveying for the thesis topic "A Comparative Study of Pricing Structure of Goods between Traditional Commerce and E-commerce in Western Vidrabh from 2010-2019" (with special reference to select FMCG goods)

https://www.profitwell.com/recur/all/flat-rate-pricing

https://www.investopedia.com/terms/f/fastmoving-consumer-goods-fmcg.asp

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Measuring Csr Gap In Leading Two Wheeler India Company

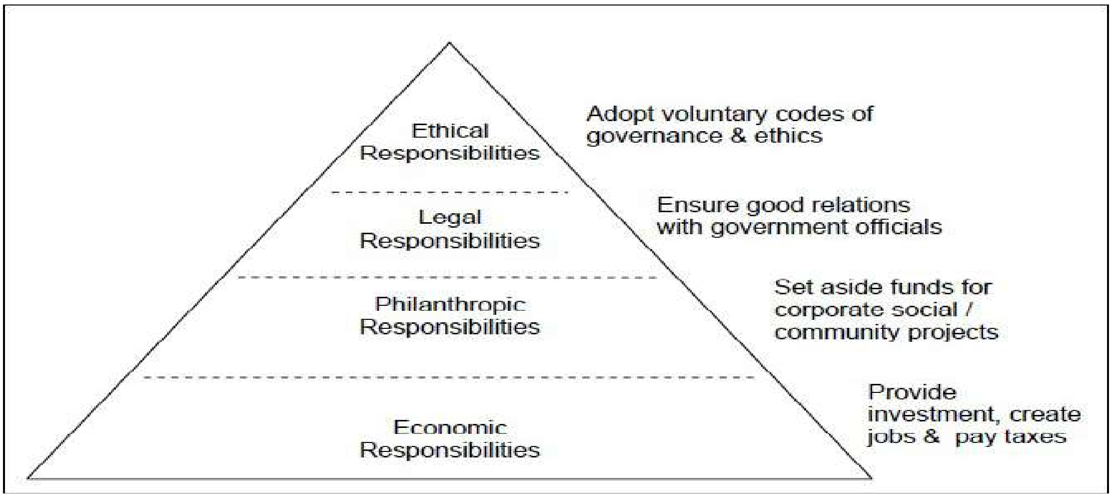
Dr.Ashok Agarwal
Professor Department of A.B.S.T. University of Rajasthan, Jaipur
Sunita Kumawat
ResearchScholar,Department of A.B.S.T. University of Rajasthan

Abstract

In recent years, corporate social responsibility (CSR) in Indian automobile companies in has received more attention. However, in this literature we focused only a two wheeler company mainly in India. For this purposed the company selected is named as hero motor corporation, which is a very popular and well known company.The results revealed that the company has not spent the expected 2Percent of its profit on CSR activities. Further, for the purpose of the gap measuring the Gap between the Prescribed CSR and Actual CSR is measured in the selected companies by using the paired sample t test. The results revealed insignificant gap between the two and we can say that the gap in Prescribed CSR and Actual CSR is due to sample and ignorant and further the company's are spending the desired amount set as a target as per budget.

Introduction

'CSR has blossomed by way of an idea'(The Economist, 2005). However, as it is noted, its uncertainty nature is expressed in both the general and the specific contexts. There has been a propagation of terms that have emerged to capture the business such as CSR (Wood, 1991; Carroll, 1979), corporate citizenship (Moon et al., 2004) and sustainability (Welford, 1997), this have all been industrialised in the background of the western world. Numerous concepts have appeared to capture the impacts and interaction between globalization and multinational enterprises' CSR activities. Global citizenship is created around concepts or codes(Logsdon and Wood, 2005), orientation, styles of implementation and accountability, combining multi-domestic strategies with globally integrated strategies (Bartlett and Ghoshal, 1989). However, even this principle is still focussed on US principles of the role of business in society and is essentially looking at how these are exported to various locations around the world, rather than understanding how CSR is manifesting itself and evolving in culturally and institutionally diverse settings.However, there is voluminous evidence of the benefits of business bringing capital investment, job creation, skills transfer, infrastructure development, knowledge sharing and social responsibility programmes to countries throughout a country (Fourie&Eloff, 2005; IBLF, 1995, 2002a; SustainAbility, 2002; Visser, 2005).Carroll's (1991) pyramid to describe CSR in Europe, this section will use the four-part construct to look at how CSR manifests itself in an Indian context.



Source: Carroll (1991). The Pyramid of Corporate Social Responsibility

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In India the legal requirement of CSR has a link with the newly made Companies act 2013 and it is also used as ethical responsibilities of the companies.

Objectives

The objectives of the research is to analyse the spending of the selected company of=n CSR and to measure Gap between the Prescribed CSR and Actual CSR.

Reviews of Literature

Koirala (2014) analysed "the effect of CSR activities in customers buying behaviour and how they perceive it. This effect of consumer buying behaviour has been analyzed through respondents' views through the questionnaire. From the research analysis, it is concluded that the consumers are only aware about the CSR activities of Bajaj, Hero, Honda and Yamaha while they are unaware about the activities of TVS, Mahindra, Suzuki, KTM Duke, royal Enfield and Hartford. Such awareness has low impact on buying behaviour of the consumers. Consumers are more concerned about the price, mileage and financing facilities rather than the CSR activities. The companies are following the CSR activities just to build the favorable image in the minds of consumers. Low awareness of consumers in CSR has direct impact on environmental and social development. Nepal Government and responsible bodies like NADA (Nepal Automobile Dealer Association should focus enacting compulsion CSR building activities through the dealers".

Yakovleva& Vazquez-Brust (2012) examines "the conceptualisation of corporate social responsibility (CSR) in the context of mining multinationals (MNCs) in Argentina. It explores the suitability of CSR for addressing social, environmental and economic issues associated with mining in the country. The study is based on interviews with four stakeholder groups in the country: government, civil society, international financial organisations, and mining industry. These are analysed using content and interpretative techniques and supplemented by the content analysis of secondary data from headquarters of mining MNCs".

Singhapakdiet. al., (2015) explained that "CSR has emerged as an important topic. The focus of this research is on the impact of incongruity between an organization's CSR orientation and its employees' CSR orientation on two dimensions of employees' quality of work life (QWL)—lower- and higher-order need satisfaction. The sample consists of employees of six companies selected from different sectors in Thailand. The results indicate that incongruence between employee's and firm's CSR orientation is negatively associated with both lower- and higher-order need satisfaction".

Sweeney (2007) revealed that "to overcome both of these research gaps and provide deep understanding of the nature of CSR in Ireland. Specifically this research aims to uncover the difference between large firms and SMEs operating in Ireland with regard to their understanding of CSR, the type of CSR activities undertaken and the management of CSR. They highlighted the way in which firms operating in Ireland define CSR. It differentiates between the management and activities of CSR among SMEs and large firms and uncovers barriers and opportunities experienced by SMEs when undertaking CSR".

Joireman et.al.,(2018) investigated "different levels of corporate social responsibility arevisually framed through corporate publications used in marketing communications. Photographs used as visual marketing communication tools in the annual and sustainability reports of top American multinational companies that practice and promote measures of corporate social responsibility were analyzed. Findings indicate the corporations overall emphasize environmental sustainability efforts and visually communicate their practices through depictions of employees while other social responsibility efforts are often communicated through depictions of consumers. A discussion on the patterns of visual frames that communicate corporate social responsibility and the impact of visuals on organizational identity, brand image, and reputation are offered".

Kim & Ann (2018) identified "measures through an exploratory factor analysis, and the initial measurement model was refined via a confirmatory factor analyses. The study identified six essential CSR communication dimensions: (1) informativeness, (2) third-party endorsement, (3) personal relevance, (4) message tone, (5) consistency, and (6) transparency. These six constructs revealed satisfactory reliability, discriminant validity, and convergent validity. The findings offer an integrated theoretical and methodological basis for evaluating effective CSR communication practice, filling an important missing link between CSR activities and their outcomes".

Barchiesiet.al., (2018) conducted "a quantitative study was conducted on a representative sample of consumers (n = 2000) in the form of a structured questionnaire, administered using face-to-face interviews. Three different stimuli were created through fictitious images of a non-existent brand product. Only the color of the packaging varied, while all the other graphic elements were left unchanged. The results show that, despite the prevailing association of green with the concepts of sustainability and CSR, it is not the most suitable color to clearly and credibly convey a CSR message to consumers. Thus, it is important to examine whether different colors could serve better to improve the clarity and credibility of CSR claims".

Bögel (2019) "filled a gap in the literature on underlying mechanisms of consumers' reactions to CSR communication. The results suggest that companies with prior negative reputations do not need to remain silent about their CSR activities; instead, CSR communication can help improve consumers' trust in companies. However, the findings of these two studies also suggest that this positive development is short-lived. Consumers' developing trusts in companies' CSR activities decrease significantly if they are exposed to negative information on these companies".

Agnihotri& Bhattacharya (2019) revealed that "in Emerging markets suffer from institutional voids, and in such resource deficient economies, corporate social responsibility is given scant attention. However, when firms from emerging markets globalize, international stakeholders become suspicious about firms' products, services, and business practices. Grounded in the liability of emergingness and legitimacy theory and using a sample of 134 manufacturing firms from one emerging market, India, this study explores how firms' international diversification intent and market-seeking motives influence emerging markets' firms communication of socially responsible activities as an attempt to eliminate illegitimacy. Furthermore, the study reveals that business group affiliation enhances the influence of internationalization on firms' communication of socially responsible activities".

RESEARCH METHODOLOGY

Research methodology is a way to systematically and logically solve a problem, understand the process, analyses methods in addition to the information obtained.

Sampling / Sample Design

This research includes the CSR spending of automobile company Hero Motor Corporationof the country selected on the basis of their sales and production capacity.

Size of sample: the sample includes 1 company with its 5 years data of CSR from 2017 to 2021.

Data Collection Methods:

a) Secondary data: the secondary data of the company's profitability and CSR spending were gathered by using annual reports of the companies.

SELECTED COMPANY

As per the mission of Hero, CSR are integral to the way we conduct our business. They believe in 'Manufacturing Happiness' through our various factories, where man, machine and nature work together in harmony to minimize environmental impact and develop a healthy ecosystem. Their efforts focus on activities that enhance environmental capital, support rural development and education, facilitate healthcare, create sustainable livelihoods and promote sports and road safety awareness. They Care is our CSR Umbrella, under which we have four flagship programmes – Happy Earth, Ride Safe India, HamariPari and Educate to Empower, that are aimed at fulfilling the CSR vision to have a Greener, Safer and Equitable world.

DATA ANALYSIS

The data of the company is presented as under:

Table-1: Annual CSR and Prescribed CSR (in Crore)

Year	Actual CSR	Prescribed CSR	Annual profits	% of actual CSR
2020-2021	93.72	101.95	5011	1.87
2019-2020	84.34	82.60	5,172.79	1.63
2018-2019	85.14	70.62	4,485.79	1.90
2017-2018	2.37	44.04	4,399.82	0.05
2016-2017	65.00	58.18	3,326.66	1.95

The above table shows the expenditure company prescribed and actual one. The difference between the two is analysed as per the objectives of the research work. Further the expenditure of the company is below 2 percent level prescribed by the company.

The relation of CSR and profitability is measured for the company by using the Pearson correlation coefficient and the results are as under:

Table-2: Correlation results

Descriptive Statistics

	Mean	Std. Deviation	N
profit	4479.21	724.32	5
Prescribed	71.47	22.26	5
Actual	66.11	37.15	5

Correlations

		profit	Prescribed	Actual
profit	Pearson Correlation	1	.642	.314
	Sig. (2-tailed)		.243	.607
	N	5	5	5
Prescribed	Pearson Correlation	.642	1	.844
	Sig. (2-tailed)	.243		.072
	N	5	5	5
Actual	Pearson Correlation	.314	.844	1
	Sig. (2-tailed)	.607	.072	
	N	5	5	5

The result revealed that the profit has positive but insignificant correlation with bith Prescribed and actual CSR. ($p>0.05$).

As per the objective of the study the comparison between the prescribed and actual CSR spending's were made. For this purpose the data of 5 years from 2016-17 to 2020-21 were gathered and the following hypothesis were made:

H_1: There is significant difference between the prescribed and actual expenditure of the company.

To check out the above hypothesis the paired sample t test is used and the resulst are as under:

Table-3: Paired sample t test for measuring differences

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Prescribed	71.48	5	22.26	9.96
	Actual	66.11	5	37.15	16.61

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Prescribed & Actual	5	.844	.072

Paired Samples Test

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		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Prescribed - Actual	5.36	21.91	9.79	-21.84	32.57	.547	4	.613

Conclusion: the CSR is the major activity for returning to the society by the company from which it has earned the profit and thus it should be followed by all the companies as per the prescribed rules. The result of relation between Prescribed and actual CSR revealed that the profit has positive but insignificant correlation with both Prescribed and actual CSR. Further the study unrevealed the facts that gap between the two Prescribed CSR and Actual CSR is due to sample and ignorant and further the companies are spending the desired amount set as a target as per budget.

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Green Marketing- Development, Challenges And Opportunities

Dr. Amol Laxmanrao Dhoble
HOD & Assistant Professor Department of History Dhanwate National College, Nagpur

ABSTRACT:

Environmental issues influence all human activities, but few academic disciplines have integrated green Issues into their literature. This is especially true for marketing. Now a days consumers are aware about the environmental issues like; global warming and the impact of environmental pollution As society becomes more concerned with the natural environment, businesses have begun to modify their behaviour in socially accepted concerns. In the modern era of globalization, it has become a challenge to keep our natural environment safe and that is the biggest need of the time. Green marketing is a phenomenon which has developed particular important in the modern market and has emerged as an important concept in India.

KEY WORDS: green marketing,environment, marketing, consumers,

INTRODUCTION:

A majority of people believe that green marketing refers solely to the promotion or advertising of products with environmental characteristics. Terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing. According to the American Marketing Association, green marketing is the marketing of products that are presumed to be environmentally safe. Thus green marketing incorporates a broad range ofactivities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. in general green marketing is a much broader concept, one that can be applied to consumer goods, industrial goods and even services. For example, around the world there are resorts that are beginning to promote themselves as "ecotourism".

Definition: All activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment.

OBJECTIVE:

This paper attempts to throw light on the conceptual issues associated with green marketing. The present study is exploratory in nature to provide a clear guidance for empirical research. It is also descriptive where the focus is on fact finding investigation with adequate interpretation. For this purpose secondary data were collected. The secondary data were collected through newspapers, magazines, books, journals, conference proceedings, Government reports and websites.

WHY GREEN MARKETING? In market societies where there is "freedom of choice", it has generally been accepted that individuals and organizations have the right to attempt to have their wants satisfied. As firms face limited natural resources, they must develop new or alternative ways of satisfying these unlimited wants. Ultimately green marketing looks at how marketing activities utilize these limited resources, while satisfying consumers wants, both of individuals and industry, as well as achieving the selling organization's **objectives**.

1. When looking through the literature there are several suggested reasons for firms increased use of Green Marketing.
1. Consumers are aware about the environmental issues like; global warming.
2. Organizations believe they have a moral obligation to be more socially responsible.
3. Governmental bodies are forcing firms to become more responsible for environmental issues by imposing various laws for environmental safety
4. Competitors' environmental activities pressure firms to change their environmental marketing activities.
5. Cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behavior.

OPPORTUNITY:

It appears that all types of consumers, both individual and industrial are becoming more concerned and aware about the natural environment. In a 1992 study of 16 countries, more than 50% of consumers in each country, other than Singapore, indicated they were concerned about the environment. A 1994 study in Australia found that 84.6% of the sample believed all individuals had a responsibility to care for the environment. A further 80% of this sample indicated that they had modified their behavior, including their purchasing behavior, due to environmental reasons. As demands change, many firms see these changes as an opportunity to be exploited. Given these figures, it can be assumed that firms marketing goods with environmental characteristics will have a competitive advantage over firms marketing nonenvironmentally responsible alternatives. There are numerous examples of firms who have strived to become more environmentally responsible, in an attempt to better satisfy their consumer needs.

CHALLENGES IN GREEN MARKETING:

1. **Need for standardization**: There is no standardization currently in place to certify a product as organic. Unless some regulatory bodies are involved in providing the certifications there will not be any verifiable means.
2. **New concept**: Although urban consumer is aware about Green products, it is still a new concept for the masses. The consumer needs to be educated and made aware of the environmental threats.
3. **Patience:** The marketers need to look at the long-term benefits from this new green movement. It will require a lot of patience and no immediate results. Since it is a new concept and idea, it will have its own acceptance period.
4. **Avoiding green myopia**: The primary reason why consumers buy certain products in the first place. Do this right, and motivate consumers to switch brands or even pay a premium for the greener alternative.

GOLDEN RULES OF GREEN MARKETING:

1. **Know you're customer**: Make sure that the consumer is aware about the issues that your product attempts to address.
2. **Educating your customers**: Isn't just a matter of letting people know you're doing whatever you're doing to protect the environment, but also a matter of letting them know why it matters.
3. **Being genuine & transparent**: Your green marketing campaign and your business policies are consistent that will allow a green marketing campaign to succeed.
4. **Reassure the buyer**: Consumers must be made to believe that the product quality will not suffer in the name of the environment.
5. **Consider your pricing**: If you're charging a premium for your product-and many environmentally preferable products cost more due to economies of scale and use of higher quality ingredients-make sure those consumers can afford the premium and feel it's worth it.
6. **Consumer expectations have changed**: It is not enough for a company to green its products; consumers expect the products that they purchase pocket friendly and also to help reduce the environmental impact in their own lives too.

PRESENT TRENDS IN GREEN MARKETING IN INDIA:

Organizations are Perceive Environmental marketing as an Opportunity to achieve its objectives. Firms have realized that consumers prefer products that do not harm the natural environment as also the human health. Firms marketing such green products are preferred over the others not doing so and thus develop a competitive advantage, simultaneously meeting their business objectives.

CONCLUSION:

Green Marketing come with drastic change in the world of business. From the business point of view because a clever marketer is one who not only convinces the consumer, but also involves the consumer in marketing his product. Green marketing should not be considered as just one more approach to marketing, but has to be pursued with much greater, as it has an environmental and social dimension to it. With the threat of global warming looming large, it is extremely important that green marketing becomes the norm rather than an exception or just a fad. Recycling of paper, metals,

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plastics, etc., in a safe and environmentally harmless manner should become much more systematized and universal.

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Financial Inclusion For Economic Growth Through Digital Banking Units (Dbu's)

Dr.K.Anjaneyulu
,Associate Professor of Commerce,Vivekananda Government Degree College Vidynagar Hyderabad,Telangana State, Pin: 500044,kolaanjaneyulu07@gmail.com

Abstract

In the Era of India's digitalization, banking sector taking new shape and shifting to new paradigms is the need of the hour. In this direction, our Prime Minister Narendra Modi Launched Digital Bamking Units (DBU's) in Indian Banking System to Revolutionize the Financial Inclusion for Speedier Economical Growth in Indian Economy. DBU's is the Brain Child of our Prime Minister to extend accelerated Financial Credit to the Rural India's Agriculture, MSME and Startup Sectors.

Digital Banking is the new paradigm in India which offers multiple benefits to the banking sector. It helps in increasing the productivity and profitability of banking sector. It is a technological Updation in the growing era. This is mainly introduced to improve 4Cs namely Cost, Convenience, Control and Customer satisfaction. The framework/ structure of digital banking is the result of the collaborated efforts of the group comprising IDRBT research team, bankers, IT professionals and consultancy experts. The term digital is refers to the storage of data in the form of digital signals. It can make the banking function easy. ATM (Automatic Teller Machine) is an electronic telecommunication device.In the wake of Narsimhan committee recommendation and introduction of technology in Banking, Digital Banking System has become inevitable to integrate in the Globally Digitalised Banking system for authentic and accurate banking transactions.Further,invasion of Foreign Banks and MNC'S on Indian Economy necessisated for making Indian Banking a Digitalised one.The present paper is guided by the main objective of identifying and evaluating the emerging trends in Indian Digitalised Banking System.However,the following are sub objectives of the paper:to trace their evolution, opportuties and challenges for Digital Banking in India, and to identify and evaluate the factors affecting and emerging trends in Digital Banking in India .Digital banking has drastically reduced the operating costs of banks. This has made it possible for banks to charge lower fees for services and also offer higher interest rates for deposits. Lower operating costs have meant more profits for the banks.With the increased convenience of anytime, anywhere banking, the number of customers has increased for banks. Human error in calculations and record keeping is reduced. With records of every transaction being maintained electronically, it is possible to generate reports and analyze the data at any point and for different purposes.It is important for banks to work on not only good website, social media connect and mobile banking etc.Banks must be careful regarding cyber threats and been prepared to handle cyber attacks.

Key Words:1.Digital Banking 2.Financial Inclusion 3.Digital Banking Units (DBU's)

Introduction to India's Digital Economy

This article attempts to measure the size of India's digital economy and how it interacts with other non-digital sectors of the economy utilising the available national input-output statistics, based on the already existing categorisation of economic activities. Following ADB's (2021) framework, the core digital economy is estimated to be 5.40 per cent (US$ 0.11 trillion) of Indian economy's overall GVA in 2014 (US$ 1.99 trillion), which increased by more than 15 per cent annually in absolute terms to contribute to 8.5 per cent (US$ 0.22 trillion) of economy's GVA in 2019 (US$ 2.62 trillion). Our estimates are broadly in line with ADB (2021) findings. The rate of growth of the core digital economy was 2.4 times faster than the annual growth rate of the whole economy. The core digital economy prominently acts as a supplier of value-added to the non-digital sectors because the forward linkages are stronger than the backward linkages. To increase the ability of the digital economy to act as a pull force by spurring innovation, generating efficiencies and improving services, policies such as Make in India, PLI scheme, which incentivise domestic production of computers, electronics etc. are crucial for India's growth going forward.

• Further, digital innovation leads to systemic effects in industries and markets, termed as digital disruption. The digitally dependent economy was around 22.4 per cent of the overall economy (around 0.6 trillion) in 2019. While there has been phenomenal growth of the core digital economy (powered by the ICT sector), the size of the digitally dependent economy has not grown at a comparable pace. This may be because digital innovations impact the economy over a longer term. Further, the weighted output multiplier for the digital sector has grown between 2014 and 2019, as opposed to the non-digital sector's output multiplier. This reflects greater investments in the digital sector will drive the total output of the economy by a larger value. Policymakers can make use of multipliers to comprehend the sectors which should be chosen for investment to enhance final demand, as the sectors that have the highest direct and indirect effects on the economy will have a greater impact on the economy.

• The employment estimates, based on ADB's (2021) framework and PLFS (2019) show that 4.9 million people were employed in the core digital sector. Considering the total digitally dependent economy, around 62.4 million workers are employed in sectors that are digitally disrupted. The extent of employed workers exposed to digital disruption underscores the need for digital literacy and skilling, more so considering the high growth of employment expected in the digital sector in coming years, as internet connectivity and industry 4.0 alter production and consumption technologies.

However, the study is not bereft of limitations. Access to granular data based on a 35x35 input-output table is limited. Further, it is difficult to capture the digital economy based on traditional statistics because of the numerous interactions of digital technology across various activities in the economy. These limitations have resulted in the commencement of efforts by organisations and countries to create satellite accounts within the System of National Accounts to estimate the value-addition of the digital economy. Thus, a wider discussion among national statistical agencies and academicians involved in developing measurement framework seems to be a step in the right direction.

BACKGROUND FOR DBU'S

In yet another measure to deepen financial inclusion, the Prime Minister, Shri Narendra Modi dedicated 75 Digital Banking Units (DBUs) to the nation via video conferencing. As part of the Union budget speech for 2022-23, the Finance Minister announced setting up the 75 DBUs in 75 districts to commemorate our country's 75 years of independence. The DBUs are being set up with the objective to ensure the benefits of digital banking reach every nook and corner of the country and will cover all the States and Union territories. 11 Public Sector Banks, 12 Private Sector Banks and one Small Finance Bank are participating in the endeavour.

DBUs will be brick-and-mortar outlets which will provide a variety of digital banking facilities to people such as opening savings accounts, balance-check, print passbooks, transfer of funds, investment in fixed deposits, loan applications, stop-payment instructions for cheques issued, applying for credit/debit cards, view statement of account, pay taxes, pay bills, make nominations, etc.

DBUs will enable customers to have cost-effective, convenient access and enhanced digital experience of banking products and services throughout the year. They will spread Digital Financial Literacy and special emphasis will be given to customer education on cyber security awareness and safeguards. Also, there shall be adequate digital mechanisms to offer real-time assistance and redress customer grievances arising from business and services provided by the DBUs directly or through Business Facilitators/ Correspondents.

ABOUT DIGITAL BANKING UNITS (DBUs)

The DBUs will enable those who do not have ICT infrastructure to access banking services digitally. They will also assist those who are not tech savvy to adopt digital banking. In DBU, the products and services will be offered to customers in 2 modes:

- Self Service Mode
- Digital Assistance Mode

DBUs will be different from traditional branch in following aspects:

- They will provide banking services including cash deposit & withdrawal 24 x 7.
- Services shall be provided digitally.

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- People not having connectivity or computing devices can do banking transactions from DBU in a paperless mode.
- Bank staff will be available to help and guide users for banking transactions in assisted mode
- Will help in providing digital financial literacy and create awareness for adopting digital banking.
- Services being offered through DBU include banking facilities like opening of savings account, balance-check, print passbook, transfer of funds, investment in fixed deposits, loan applications, stop-payment instructions for cheques issued, application for credit / debit cards, view statement of account, pay taxes, pay bills, make nominations, etc. The DBUs will also facilitate onboarding to Government credit link schemes through the Jan Samarth portal and end-to-end digital processing of a small ticket MSME/retail loans.

What is Digital Banking?

The Reserve Bank of India (RBI) defines digital banking as present and future electronic banking services provided by a licensed bank for the execution of financial, banking and other transactions, instruments through electronic devices or equipment over websites (online banking), mobile phones (mobile banking) or other digital channels which involve significant level of process automation, and cross-institutional service capabilities running under enhanced technical architecture and differentiated business strategy.

How Digital Banking is Different from Traditional Banking

DBUs are different from traditional banking in some ways. They will provide banking services, including cash deposit and withdrawal, 24 x 7. All the services shall be provided digitally. People not having connectivity or computing devices can do banking transactions from DBU in a paperless mode. Bank staff will be available to help and guide users for banking transactions in assisted mode. The units will also help in providing digital financial literacy and raise awareness for adopting digital banking.

Das said that DBUs will act as an enabler in the digital ecosystem and will improve customer experience by facilitating seamless banking transactions as also augment our efforts to promote financial inclusion by providing banking services in a paperless, efficient, safe and secure environment.

REVIEW OF LITERATURE

1. Arunangshu in his paper focused on digitalization on rural banking system in India. Digital banking system have enormous potential to change the landscape of financial inclusion. They found that with the features of low cost, ease of use of digital banking can accelerate the integration of unbanked economy to the maintenance.
2. Rajeshwari in her research paper found that digital banking increase the expectations of customers from banks. With the help of secondary data they analyse that digital banking become the milestone in Indian banking system. It enhance the growth and progress of Indian banking. It found that due to digital banking the operating cost of banks has been reduced rapidly. Lower operating cost means more profits for the banks. According to him digital banking has a power change the banking structure.
3. Aarti Sharma, in her research paper concluded that digital banking will proves a milestone in the Indian economy. The study is analytical in nature and based secondary data. According to her digital banking impact on Indian economy. With the change in the technology of banking system, the economy also faces the changes. It can provide better services to their customers. Due to their rapid growth it is acceptable in the market. Now by analysing the benefits of digital banking everyone in the market demanded this for the overall growth and success.
4. Kiran Jindal conducted a research and analyse that with the promotion of digital banking it is also necessary to enhance awareness and preference of customers for banking products. It basically emphasis on HDFC banking products. The paper is based on empirical study. They can use primary data for the study. With the use of questionnaire they collect the data they analyse that age factor is most effective factors which effects the digital banking system. The customers over the age of 35 doesn□t accept the change and still they are dependent upon public sector banks other than privet sector banks. Customers are not much awarewith the new technology. So it is very important for the

success of digital banking is to promote awareness among customers. For analysing the data researcher use SPSS software.

5. Ruby in her paper studied the problems and prospects of E- Banking. It also focus on the pros and cons of digital banking which effects the customers perceptions. They also focus on the risk involved while introducing digitalisation in the market. The secondary data was used for the research paper. They concluded that E- Banking offered a high level of convenience for managing finance for the customer in the digital market. They also analysed the risk means financial security, personal privacy towards the customers

6. Vishal conducted a study and concluded that customers always want safety and security during cash transactions. This paper makes more emphasis on the perception and opinion of urban mobile banking users. He focuses on practices, challenges and security issues related mobile banking in India. He uses quota sampling method. The data is collected from the primary source of data. The sample size is 100 respondents divided into two catagories: 50 users and 50 non- users of mobile banking. The sample is taken from Ghaziabad city. It was analysed that knowledge regarding use of mobile phone was the most important issue in mobile banking due to availability of various handsets models supporting fferent types of technology in the market.Chandrawati identify the drivers of digital banking transformation for Indian banking system. E- Technology has become a tool that facilitates banks organizational structures, business strategies, customer services and related functions. Using exploratory research, the study concluded that digitalization changed the face of branch banking and mobile was being increasingly used as a primary channel of banking. Moreover, integration with social media components as their online channels was also a major driver for digital banking transformation

7. Sahu and Kumar studied the important factors responsible for successful implementation of digital payment (e-Payment) system in India. Conducting a qualitative study with extensive literature review and using interview and expert opinion, 13 success factors namely Anonymity, Bank Involvement, Drawer, Infrastructure, Mobility, Parties, Popularity, Range of Payment, Risk, Security, Transfer limit, Transfer mode, and Transfer time were responsible for successful implementation of digital payment at Allahabad city.

8. Ankit and Singh conducted a study to analyses the impact of Technology Acceptance Model (TAM) in the context of internet banking adoption in India under security and privacy threat. Keeping the TAM proposed by Davis as a theoretical basis, the paper revealed that perceived risk had a negative impact on behavioural intention of internet banking adoption and trust had a negative impact on perceived risk. A well designed web site was also found to be helpful in facilitating easier use and also minimizing perceived risk concerns regarding internet banking usage.

Objectives of the Paper:

In the wake of Narsimhan committee recommendation and introduction of Technology in Banking in India, Digital Banking System has become inevitable to integrate in the Globally Digitalised Banking system for authentic and accurate banking transactions.Further,invasion of Foreign Banks and MNC'S on Indian Economy necessisated for making Indian Banking a Digitalised one.The present paper is guided by the main objective of identifying and evaluating the emerging trends in Indian Digitalised banking System However the following are sub objectives of the paper:-

i) To trace then evolution, opportuties and Changing Land Scape for Digital Banking in India.
ii) To identify and evaluate the Prime Minister's Brain Child concept of Digital Banking Units for Speedy Economic Development in India, and
iii) To suggest Achieving Financial Inclusion through Digital Banking Units.

Guidelines that banks need to follow while establishing DBUs

The RBI is very clear on how banks need to scale up their digital infrastructure. The guidelines laid down by the RBI cover the entire scope of setting up DBUs. The key points are as follows:

1. **Infrastructure:**

- According to the digital banking guidelines by the RBI, each DBU will need to be housed distinctly with separate provisions for entry and exit.

- Banks are required to rebuild their entire technology infrastructure to support this transition. RBI has pointed out that banks should have the capabilities of building 'core-independent digital-native technologies' that are scalable and flexible. Banks need to have a technology infrastructure that can support digital banking including API integration.
- However, banks are allowed to opt for either an in-sourced or out-sourced model to operate their digital banking services. That said, the outsourced model must be in compliance with the relevant regulatory guidelines.
- The RBI also stated that the plan to set up DBUs must be part of the digital strategy of the bank.
- When it comes to the operational governance and the administrative structure of the DBUs — they need to be aligned with that of the Digital banking segment of the bank.

2. **Products and services:**

- According to the RBI, every DBU must provide certain minimum digital banking products and services.
- Furthermore, these products offered by the DBUs must be there on both the assets and the liabilities side of the balance sheet of the respective digital banking segment.
- By using its hybrid and high-quality interactive capabilities, DBUs are also required to migrate to more structured and tailor-made products from their standard offerings.
- The products and services that can be provided at a Digital Banking Unit include cash withdrawal and deposit, the opening of accounts, updating KYC, lodging of grievance and transfer of funds, among other services.

3. **Team and the role of the Board of Directors:**

- Each DBU will be headed by a senior executive of the bank, preferably Scale III or above for PSBs or equivalent grades for other banks. These experienced and senior executives must be those who can eventually be designated as the Chief Operating Officer (COO) of the DBU.
- To expand the virtual footprint of DBUs, banks can appoint a digital business facilitator or a business correspondent in adherence to the relevant regulations.
- Considering the operational flexibility given to banks in this domain, the Board of Directors should ensure mechanisms for regular on-site and off-site monitoring, covering every aspect laid out in the guidelines
- Either the Board of Directors or a Committee of the Board should periodically review the performance of the digital banking services offered and the progress made by the respective DBU with time. They should take into consideration both the revenue and the risk aspect of every segment.

4. **Reporting:**

- As per the guidelines, RBI wants the banks to treat the business sourced from DBUs separately.
- The banks are required to report the business from the Digital Banking Units as a sub-segment within the existing "Retail Banking Segment" in a pre-approved format.

5. **Other key points:**

- In addition to ensuring the security of the physical infrastructure of the DBUs, banks will also need to have stringent cyber security measures in place for the DBUs.
- In order to induct customers into self-service digital banking services, banks must offer tools to enable hands-on customer education on safe digital banking products and practices.

RBI also clearly stated the need to have a digital mechanism in place that will offer real-time assistance to address the customer grievances that arise from the services provided by the DBUs.

The rise of Digital banks

43% of Indian adults to have a digital bank account by 2025 As it stands, 26% of respondents in India have a digital bank account, according to a recent global survey of 2,899 conducted by Finder in April 2022. While 26% of respondents in India say they have a digital bank account, an additional 12% plan to open one in the next year, bringing the percentage of people in India with a digital bank account to 39%. That figure is expected to jump even higher to 46% by the end of 2027.

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Projected number of Digital banker:

Year	Forecast
2022	26%
2023	39%
2027	46%

Men are more likely to have a digital-only bank account

Men are more likely to have a digital bank account than women, with 29% of men compared to 23% of women saying they have an account.

People aged 18-24 are most likely to bank online

Those aged 18-24 in India are most likely to say they have a digital bank account, with 33% having an active service.

Which country has the most digital bankers?

Brazil leads the way for digital bankers in 2022, with 43% of those surveyed saying they have an account. Brazil is followed by India (26%), Ireland (22%), Singapore (21%), Hong Kong (20%), United Arab Emirates (19%), Mexico (17%), Spain (17%) and South Africa (15%).

At the other end of the spectrum, the United States has the smallest percentage of adults with a digital-only bank account (8%), followed by both the Philippines and Malaysia at 13%, and Portugal and Germany with 14%.

During the previous survey, Mexico was projected to see an increase in digital bankers of 20 percentage points from 2021 to 2026, which was the highest growth rate of all of the selected countries. And that growth is expected to continue in the years to come with the number of digital bankers in Mexico projected to increase between 2022 to 2027 by almost 24 percentage points (once again the highest growth rate). The United Arab Emirates is close behind with a projected increase of 22 percentage points, followed by The Philippines (21 points) and India (19 points).

The percentage of adults with a digital only bank account in 2022 and the percentage that will have one by 2027

Sl.no.	Country	2022	2027 (forecast)
1	**Brazil**	**43%**	**57%**
2	**India**	**26%**	**16%**
3	**Ireland**	**22%**	**34%**
4	**Singapore**	**21%**	**35%**
5	**Hong Kong**	**20%**	**32%**
6	**United Arab Emirates**	**19%**	**41%**
7	**Mexico**	**17%**	**41%**
8	**Spain**	**17%**	**31%**
9	**South Africa**	**15%**	**31%**
10	**Germany**	**14%**	**24%**
11	**Portugal**	**14%**	**32%**
12	**Malaysia**	**13%**	**28%**
13	**The Philippines**	**13%**	**33%**
14	**United States**	**8%**	**15%**

Countries and Regions that experienced a digital only banking COVID dip

Country	2021	2022	2023(forecast)
Ireland	25%	22%	28%
Malasia	20%	13%	21%
Germany	19%	14%	18%
Philippines	18%	13%	25%
Portugal	14%	14%	24%

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However, in the majority of countries we looked we see an uptick in the number of people who say they had a digital-only bank account. Brazil sees an 11 percentage point bump in digital bankers between 2021 and 2022, with Mexico not far behind at 6 percentage points.

Countries and Regions that experienced a digital only banking COVID uplift

Country	2021	2022	2023(forecast)
Brazil	32%	43%	50%
Singapore	18%	21%	30%
United Arab emirates	17%	19%	34%
Spain	14%	17%	24%
Mexico	11%	-	30%
United states	6%	8%	11%
Hong kong	18%	20%	26%

However, all countries are expected to see an increase again by 2027. On average, 34% of people worldwide will have a digital bank account within the next 5 years, up from an average of just 19% in 2022.

Countries and Regions with the biggest digital only banking gender gap

Country	Men	Women	Gap
Hong kong	25%	16%	-9%
United arab emirates	21%	12%	-9%
Mexico	22%	13%	-8%
Singapore	25%	17%	-8%
Spain	21%	13%	-8%
Brazil	46%	40%	-6%
India	29%	23%	-6%
South Africa	18%	12%	-5%
Ireland	25%	19%	-5%
United states	10%	6%	-4%
Germany	16%	13%	-3%
Phillippines	14%	11%	-3%
Malaysia	14%	12%	-2%
Portugal	14%	14%	0

Meanwhile, in Portugal, women are actually just as likely to have an online-only bank account with 14% of both men and women saying they have an account.

Countries and regions with the biggest digital only banking by age (2022)

COUNTRY	18-24	25-34	35-44	45-54	55-64	65+
Brazil	47%	55%	46%	41%	30%	28%
Malaysia	20%	14%	12%	14%	12%	6%
Philippines	12%	15%	16%	15%	7%	4%
Ireland	28%	34%	27%	18%	17%	12%
Mexico	17%	22%	19%	19%	11%	15%
Hong kong	21%	21%	22%	18%	18%	20%
Singapore	39%	26%	22%	22%	19%	7%
United arab Emirates	31%	21%	14%	16%	10%	19%
Germany	16%	15%	17%	16%	14%	12%
Spain	22%	17%	17%	16%	20%	13%
South Africa	14%	15%	18%	13%	17%	10%
India	33%	29%	27%	24%	15%	24%
United States	11%	11%	8%	7%	5%	5%

Portugal	22%	14%	16%	14%	14%	11%

CONCLUSION

The following is the Conclusion drawn from the Digital Banking Units in Achieving the Inclusive Growth in Indian Economy:

1. Digital Banking Units can boost financial inclusion It is good that the idea of Digital Banking Units, mooted in this year's Union Budget, is becoming a reality. The launch of 75 digital banking units across 75 districts is expected to give a fillip to the outreach of banking services, taking them beyond metros and large cities, to regions where financial inclusion, access to capital and formalisation of credit remain a challenge. DBU is a phygital version of a bank branch. While this is a brick-and-mortar outlet, all transactions will be done through digital banking. Customers well-versed in using technology can access banking products through the self-service zone while those who do not possess computers or smart phones or are uncomfortable with digital banking, such as senior citizens, can avail services from the digital assistance zone. DBU is expected to achieve what UPI did for payments; digitise banking products by making it for everyone to do online banking transactions. The scope of these banking units therefore extends beyond withdrawal and deposit of cash to loan applications, investments in bank deposits, applying for debit and credit card, making nominations and so on.

2. Banks will find it more viable to open DBUS since the RBI's directive for opening and operating branches are not applicable to these units. The flexibility may hence result in substantial saving on costs and improve operational efficiency, profitability, and turnaround time at branches. It would also permit banks, particularly the public sector ones which have been downsizing branches post the recent rounds of mergers, to adopt a nimbler approach to expand their footprint. Currently, a branch cannot be shut down easily even if it proves unviable and fails to break even despite three years of operations, which is the time typically required to turn profitable. This is due to the tight regulations governing such decisions. Expansion through DBUS will effectively address this aspect, giving banks more flexibility to open and shut outlets, which can eventually help improve the pace of financial inclusion. The DBU initiative also comes at a time when neo-banks, which offer end-to-end digital banking services by partnering with banks through mobile or online apps, are demanding digital bank licenses. By paving the way for the existing banks to set up DBUS, the RBI has essentially put a lid on such lobbying.

3. The effectiveness of DBUS will depend on two factors-manpower and internet availability. For DBUS to find acceptance and win the trust of customers, banks must ensure that the local talent is trained and allowed to man these outlets and frequent transfers of staff at these outlets must be avoided. Secondly, while internet penetration has increased, the quality of internet continues to be a problem in tier-2 and below regions. For effective closure of a transaction, this impediment should be addressed. The 75 DBU touch points will provide ample leanings which can be used to improve this concept in the future.

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A Comparative analysis of utilization of CSR funds by TCS and Wipro and its effect/impact on society

Anuradha Arpan Sarda
VMV College, Nagpur

ABSTRACT:

Corporate Social Responsibility (CSR) is a concept that has become increasingly important in today's business world. It refers to a company's commitment to considering the impact of its operations on society and the environment, and taking steps to minimize any negative effects.CSR is not just about doing the right thing for society, it is also about creating a more sustainable and profitable business. Companies that engage in CSR activities have been shown to have higher levels of employee engagement, stronger brand reputation, and increased customer loyalty.

However, many companies are still hesitant to fully embrace CSR, viewing it as a cost rather than an investment. It is important to understand that CSR is not just a matter of writing a check to a charity or sponsoring an event. It requires a deeper commitment and a long-term approach to sustainability.There are many different ways that a company can engage in CSR. One common approach is to focus on environmental sustainability, such as reducing energy usage, recycling, and reducing waste. Another approach is to engage in community development, such as supporting local organizations, volunteering, and providing job training.

KEY WORDS: Corporate Social Responsibility, Environment, Society, community, sustainability.

LITERATURE REVIEW:

Barin and Ansari (2017) highlighted the key CSR initiatives of a few Indian companies. A special emphasis was placed on the incorporation of environmental concerns into the CSR initiatives of the chosen corporations. Additionally, proposals to create a CSR organisation that is recognised globally were attracted. CSR arrangements and progress were examined by Reena Shyam in 2016 for India.

Additionally, it discusses the CSR concept, challenges, and steps to establish CSR activities. In order to investigate patterns of CSR disclosures made by private sector companies in publicly available company documents, Ghosh Sumona (2015) used an empirical and analytical methodology. BalaMadhu and Singh Narender (2014) used factor analysis to research and examine the commonalities between CSR activities or components across private enterprises. The amount spent on CSR donations and activities was examined by Khan and Hassan (2013) across the different domains and areas. In this study, Enock and Basavaraji (2013) examined ITC Company and Tata Company's CSR operations in various CSR locations and as a result, various news designs. The main CSR concept was first introduced by Bhupender and Joshiya (2012).. ISharma and Kiran (2012) made an effort to summarise the current situation, developments, and actions related to the creation and implementation of CSR strategies by significant Indian corporate houses. Arvind Jain (2012) reviewed recent material and focused on presenting the theoretical details of the concept of corporate social responsibility. The concept of corporate social responsibility was presented by SoheliGhose (2012), who placed special emphasis on the globalisation of CSR, legitimate needs, and reporting activity in an Indian context. As a result, specific examples of CSR violations and practises were examined. HurratulMaleka Taj (2011) made an effort to highlight the benefits and challenges of CSR as well as the sustainable development initiatives undertaken by Indian corporate houses. It also acknowledges their financial and social performance.

RESEARCH METHODOLOGY:

Research Objective:

The goal of the current study is to look into some of the top companies in India's current CSR practises as they relate to GRI (Global Reporting Initiative) guidelines, while also taking into account academic viewpoints, educational initiatives, and environmental concerns. It also considers how these two companies have integrated environmental needs into their CSR practises over time.

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Data collection Sources:

The method adopted for the purpose of data collection in the study is the extensive study and examination of purely secondary data sources.

The study relies heavily on the extensive examination of the sustainability and corporate social responsibility (CSR) govt. portal reports such as Global Reporting Initiative (GRI), Annual Reports Business Responsibility Reports (BRR), as well as freely revealed data on the web in the form of publicly disclosed information.

Sample Size:

For the aim of the study, two prime corporations of India in line with the varied rankings are taken and analyzed. The information about these companies has been collated from the printed annual reports, Annual reports on CSR portal of govt. and sustainability reports of these companies

S. No	Sector /companies	Name of the Companies
1.	Information Technology Service	Wipro
2.	Information Technology Service	TCS

DATA ANALYSIS AND INTERPRETATION: -

Table1: Showing the CSR budget and actual expenditure for the year 2016-17 (in crores) and showing the percentage expenditure of CSR on environment:

	Name of the Companies	CSR Budget (Actual Prescribed Allocation)	Actual Expenditure	Unspent Amount	% of Amount Spent (of actual allocated)	Amount spent on educational activities	% Expenditure of CSR on educational activities	Amount spent on environment	% Expenditure of CSR on environment
1	Tata Consultancy Services	446	379.71	66.29	85.13	88.00	23.175	0.6	0.15
2	Wipro	176.40	186.30	0	100	129.09	69.29	56.70	30.43

Table 2: Showing the CSR budget and actual expenditure for the year 2017-18 (in crores) and showing the percentage expenditure of CSR on environment

	Name of the Companies	CSR Budget (Actual Prescribed Allocation)	Actual Expenditure	Unspent Amount	% of Amount Spent (of actual allocated)	Amount spent on educational activities	% Expenditure of CSR on educational activities	Amount spent on environment	% Expenditure of CSR on environment
1	Tata Consultancy Services	497	400	97	80.48	86.00	21.5	400	0.25
2	Wipro	183.30	186	0	100	134.99	72.57	50	26.88

Wipro and Tata Consultancy Services (TCS) are both recognized for their commitment to Corporate Social Responsibility (CSR). Here are some statistics to demonstrate the impact of their CSR initiatives:

These statistics demonstrate the significant impact that Wipro and TCS have had through their CSR initiatives. Both companies have demonstrated a strong commitment to promoting sustainability and improving the lives of people in local communities.

ANALYSIS AND FINDINGS OF THE STUDY:

The above-mentioned tables highlight the amount that the companies have been prescribed to spend in the CSR and sustainability activities and the amount actually spent by the companies during the financial year 2016-17 and 2017-2018. From that, the percentage of amount spent on CSR is also calculated. The table also highlights the total amount that has been spent on educational and environmental and sustainable activities out of the total amount of CSR and the percentage of the stated expenditure on environmental activities.

- By studying the corporate sustainability reports of the various corporations and analyzing the figures in the tables above we get to know that although the top most companies are spending a considerable amount on csr activities which is more than the amount to be adhered to according to the legal requirements, still only a minuscule amount is being spent on environmental activities though a significant chunk of csr spending is being spent upon educational activities.
- Those organizations which have not had the option to spend their whole sum stipulated for the csrin a given financial year have expressed the reason behind the same, a typical reason that was discovered out was that a portion of their ventures explicitly concerned with the ecological sustainable activities and academic and higher-educational support and development activities are long haul undertakings spanning a considerable period of few years and there were regularly authoritative delays that the organizations looked in the reception of such tasks.

LIMITATIONS OF THE STUDY

- Time period taken is two years. Annual reports of 2016-17 and 2017-18 only have been used for the purpose of the study. The reason for taking the financial year 2014-15 was that companies act became effective on 1 April 2014.The study could have been more elaborate if the data would have been available for several past years.
- Onlytop two companies from the same sectors have been taken in the sample. The study can be made broad if the sample size can be increased and companies from other sectors except the ones taken in the study are also included.
- since the present study takes into consideration only the environmental-sustainability aspect, other sectors have not taken into consideration in the present study.

CONCLUSION:

Throughout the years, a few business houses in India have demonstrated their expanding consideration for social obligation through their commitment to wellbeing, health, education, environment and rural development programmes.In the present day and age, CSR has gone much past the customary idea of generosity (for example philanthropy and gifts) to the areas of rural and community development, institution building wherein that the companies are moving beyond just adhering to the compliance to focus on creating a long-term impact for the beneficiaries and different stakeholders. It has been noticed by an extensive study of the sustainability reports that a large chunk of money devoted for the sustainability activities is being spent primarily either on education or rural development.

The conclusion of CSR activities typically involves evaluating the effectiveness and impact of the initiatives undertaken, reporting on the results to stakeholders, and identifying areas for improvement or further action. It is also important to celebrate successes and recognize the contributions of those involved in the CSR efforts. Additionally, ongoing communication and engagement with stakeholders can help maintain momentum and support for future CSR initiatives.

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Research Library and their Services

Miss Archana Kurekar
Sudha Sureshbhai Maniar College Of Computer and Management, Nagpur
Librarian Sweetuask4@gmail.com, 9420060908

Abstract:

Research library is a special type of library which is studied separately. Research libraries are very few in number. All the essential needs of the researcher are fulfilled through research libraries. The reading materials required by the researcher are provided and according to their needs they are catered for.

Keywords: Research Library, Reading Materials, Library Services

Introduction:

The development of any subject depends on the study of that subject and research in that subject. The development of library and information science is also the result of many years of research in that field. If you study the history of human progress, you find that the human mind was never satisfied. Humans have always studied after a new research how it can be used to improve human life. Research cannot exist without library. That is why the importance of research library in research work is very common.

Research and Libraries Interrelationships:

The meaning of the word research is to make an 'inquiry' which can only be done by a scholar who has thorough knowledge and study of the subject concerned. For that he needs to read material on many subjects. At the same time, it is necessary to study the previous literature closely. This is the subject of our research. Scope information collection etc. Processing science was the basis of the laboratory and library. A social scientist is a relative Depends on the library itself. For literary research one has to rely mainly on books. Sociology, History,Librarianship etc. Similar subjects have to get their materials from other sources apart from books, yet the library has an important place in the research of these subjects.

Types of Library:

Libraries are the companion of knowledge. According to the level of researchers using library books and library and According to the type, there are following types of library.

1. National Library
2. Public Library
3. Academic Library
4. Special Library
5. Research Library
6. Children's Library
7. Reference Library

Research Library:

Institutions engaged in research work become library as research library. The reading materials available in this library are specificsubject. This research library is used extensively by the researcher in the primary educational documentation process. Apart from this, a small number of libraries existing as separate institutions but having a museum character but with research as their main objective are included in the research library. Different from other types of libraries, research libraries are of two types.

1. Research Institutes:- BARC. Mumbai.

:- TIFR, Mumbai

:- SARC. Ahmedabad

:- AITRA. Ahmedabad

:-Bhandarkar Oriental Research

:- India Historical Research Board, Pune.

2. Self- contained research library:-SaraswatiMahal, Thanjavur
:-Khudabaksh Library Patna
:-Reference Department of Mumbai Marathi Library

Materials in Research Library :-

A library is a facility that has a collection of reading material and makes it easily available to the reader. A research library usually provides reading material on the subject in which the research work is carried out in the institution is given This type of reading material includes many unique tools. The special literature collection of the research library included the following types of literature.

1. Books and similar materials
2. Rare material
3. Government publications and reports
4. Periodicals
5. Research reports and dissertations etc
6. Materials like Petas standard etc
7. Non- literary research materials, copper plates, Bhurjapatra manuscript illustrations, photographs brochures
8. Audio- visual devices
9. Computing materials

Research Library Services:

A variety of services can be initiated for a reader in a research library. Provision of these services depends on the library staff available in any library, the financial condition of the library, available space, and equipment required for various services, etc. However, the following services are provided in the research library using the available resource materials.

1.Current Awareness Services:

The information of the research library is published before or after the publication of the reading material to the researcher There is Information useful to a researcher is published in newspaper, magazine, online sans etc. This Awareness communication by information librarians to the researcher is the prevailing awareness service in the research library.

2. Transmission of selected information:

This service is provided on demand by the researcher. When a researcher starts a new research, he/ she is told which reading material will be useful by finding selected information on the topic. A researcher can sometimes determine what information is needed. But it is not possible to determine where exactly that information can be found, what the other elements of it are. That information is given to him by the library.

3. Essential Services:-

Today, information is available in huge quantity but the reader in the library especially the reader in research and industrial library does not have enough time to read this material. Because of this, instead of giving the entire original copy of such material to the reader, if a brief summary is prepared, the reader can get the desired information. This service is called Sar Seva.

4. Directing Services:

Of all the reading materials, the researcher would not have determined whether the reading material was useful. Moreover, the reader does not know exactly what material is available where. For this reason, the librarian indicates to the researcher the location of the information in the library.

5.Information Search Services:

Exactly what material is available in our library on the subject requested by the researcher? Such materials have to be obtained by looking at what can be obtained elsewhere. Sometimes this work takes more time. The nature of this service is to obtain information and provide it to the reader.

6. Reference Services:

Context links provide the reader with the information they need. Thus, the reader builds confidence in the library service. A thorough reference service is expected for the research library.

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7. Indexing Services:

A useful library service for a researcher who is just beginning research is the refinement service. Due to the research on various subjects, the research has been dismissed in the subject. Have previous researchers worked on your chosen research topic before starting the research? At the same time, the list is changed by collecting the information of the previous researcher's articles etc.

8. Translation Services:

Researches in various languages published by many researchers go to Delhi through translation links from the Research Library to the reader. Research in any language of the world is available in English or any other language.

9. Documentation provision services:

Due to rising cost of reading material not all materials can be purchased. So research library and other librariesgetting help are inevitable. Interlibrary Exchange provides a transcript service to meet your researcher's needs documentation provision services.

10. Copy Services:

At the same time, rare materials cannot be made available outside the library due to the frequent demand of researchers, so the part of reading material required by a researcher is provided in original form through transcription.

11. Information Exchange Services:

While doing research, the researcher is constantly generating various information from the library. That information by keeping their records can be easily obtained by other researchers. At the same time, that information can be given to other libraries. Thus information is shared.

12. Technical Inquiry Service:

Modern technology is widely used in the research process today. Therefore, various techniques in the research libraryinclude special informative reading material.

13. Services by Publications:

Conclusions of the researcher to inform other researchers or the general public about the work done by the researcher must be published. Therefore, a publication department is provided separately from the research library.

14. Information Integration Services:

Various types of reading materials are provided in the library to provide the researcher with information from all sides of a subject.

15. Examination Services:

In the research library, through the Readers Profile, the topics of interest and needs of the readers are recorded and the related information is presented as an examination and sent to the researcher. In this test, review articles from periodicals, other reading materials are sent.

16. Current Status Report:

Various changes taking place in research work. The researcher is given updated information about the change in the current status of the subject during the time taken for various research activities.

17. Prevailing Art Report:

The research library is constantly helping the researcher to raise the quality of the research. In order to raise the quality of research, the reports of various survey of library research are published by news organizations. Keeping in mind the subject of research of the researcher in our library, the popular art reports that will be useful to him are brought to his attention.

18. Newsletter Service:

In research work, a research service is provided in an institution for research on a subject and at the same time a newsletter is published to coordinate the research library and avoid duplication of work through the service provided in the same subject in other similar research libraries.

19. New Material Available List:

A list of new materials available in the research library is prepared and given to the researcher.

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20. Newspaper Clipping Services:

In the research library, according to the type of research, by cutting the important articles from the newspapers available in the library the service is provided to the researcher.

21. Periodic Exchange Services:

The issue of the magazine is sent to certain readers for certain hours in their section. According to the needs of researchers the service is provided in the research library.

22. Internet and E- mail Services:

Internet, e-mail, etc. are available to researchers in research libraries and other libraries. Electronic services are provided.

23. Other Computing Services:

Pendrops CD through e- services as well as computerized services as per the needs of the researchers. Rome. of multimedia etc

The various services mentioned above provide information on the working characteristics of research libraries

Summary:

A research library appears to be similar to any other type of library. But the various services in the research library, if we consider the layout of the library, type of reading material, management system and other aspects, the research library feels different from other libraries. Hence research library stands out because of its services.

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Farm Mechanization A Key To Sustainable Development

Dr. Ashish Mohata
Guide
Asso. Professor
Smt. Kesharbai Lahoti Mahavidyalaya
Amravati

Mrs. Arpita Laddha
Research Scholar
Asst. Professor
Smt. Kesharbai Lahoti Mahavidyalaya
Amravati

Abstract

Agriculture sector has an important place in Indian Economy even though it contributes only around 20% to GDP of the country and 50% to national income. India is still called an agrarian economy as it supports directly or indirectly about 42% of workforce of the country. India has had record agricultural production of 315.7 million tonnes in 2021-22 although the productivity per acre of land is still a challenge. Indian farmers are looking to increase their income and in order to achieve the same are seeking for mechanization, diversifying their crops, and looking for allied agriculture activities. Although the country is creating new records every year in production of food grains yet there are various reasons to be concerned of. But rather than looking at the problem the important thing is the solution for these problems which lies in future if we go about, it with an aim of development along with sustainable ways of development. Farm mechanization has proved to be a key input in agriculture to achieve sustainable development need to consider all technological, economic, social, environmental and cultural aspectscontributing to the development of the food and agricultural sector. Even the government needs to be pro-active in coming up with new schemes and taking it to the masses for promoting holistic development of agriculture sector as well as economy and nation as a whole.

Keywords: Agriculture, Farm Mechanization, Sustainable Development

Introduction

India has been mainly a rural country with almost 65% of its population residing in rural areas in 6.5 lakh villages. Indian economy is basically classified as an agrarian economy. With population over 1.3 billion and majority of which is directly or indirectly depending on agriculture for livelihood. India has the 10th largest arable land resource in the world employing nearly 41.49% of working population of the country. Agriculture contributes about 19% to GDP. Overall growth and development of country depends on growth and development of rural areas as rural economy contributes around 50% in national income. The rural economy of India has continuously been supporting and contributing to the economy of India. Studies have shownthatevenwhen there was slowdown in the overall economy in India, the rural economy stillshowed growth and helped the economy in difficult times. Thus, the rural economy of India is backboneof Indian economy.

The foodgrain production has gone up from 252 million tonnes in 2015-16 to record 316 million tonnes in the year 2021-22. Agriculture plays a central role in the development of the country. Agriculture along with rural population contributes significantly in the development of nation in relation to food, raw material, manpower and even in earning foreign exchange through export of various agricultural products. Prosperity of rural India largely depends on progress and prosperity of rural population. Agriculture fulfils the requirement of ever-increasing food demands along with providing raw material for various industries.

Although there is an increase in food grain production, we see that it has grown by around only 2.7% from 1960-61 which is almost equivalent to stagnant and is a bit concerning indicator. Achieving good agricultural growth is a prerequisite for inclusive growth, reduction of poverty levels, development of rural economy and enhancing of farm incomes. To achieve the target we need productive, competitive, diversified, and sustainable agrarian sector to emerge at an accelerated pace.
Today, the concept of traditional farming is going through an overhaul with use of advanced technologies resulting in introduction of high yield seeds, chemical fertilisers, pesticides and developed system of irrigation. The input in form of information through data technology by use of

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internet, artificial intelligence (AI), use of IOT (Internet of Things) for real time farm monitoring and especially use of mobile phones etc are a major driving factor in improving the way farming is done. The benefits of this advancements are better return on investment, better earnings, better working conditions, increased productivity, and multiple product uses.

Farm Mechanization

The process of using machines, technology, and automation to do work which was previously done by hand or with the help of animals is called mechanization. Farm mechanization is a term which not only includes the use of machines, whether mobile or immobile, small, or large, run by power and used for tillage operations, harvesting and threshing but also includes power lifts for irrigation, etc. It is the best way to improve productivity, and includes development, application, and management of all mechanical tools for different farm operations such as land preparation, inter-cultivation, irrigation, crop transporting, storing, processing etc. Farm mechanization is an important element of modernization of agriculture. In today's time, nurturing new technologies and refining agricultural research is the key. Despite the huge market size, agricultural sector continues to trail in various sections. Mechanization was one of the large factors responsible for urbanization and growth of industries, it helps in improving production efficiency, encourages large scale production and helps to improve the quality of farm produce.

Mechanization of farms with a view of sustainable development considers technological, economic, social, environmental and cultural aspects when contributing to the development of the food and agricultural sector. It takes a holistic view on agriculture by ensuring that farming tools are environmentally sound, economically affordable, adaptable to local conditions and resilient in terms of changing weather patterns and climate, mechanization looks to achieving larger and better harvests and increased income or new jobs for farmers.

Problem Definition

Last two decades have witnessed a tremendous growth in the population of country resulting in the increase in demand of food, housing etc. hence land available for agricultural purposes is getting used up for non-agricultural uses. To keep pace with the growing food requirement we need to improve the productivity of available agricultural land. Hence, the researcher sees a tremendous need and scope for farm mechanization. Mechanization through all these years have become popular among farmers, however, there are few farmers who are not in favour of using mechanization. Hence, on a broader level the researcher wants to enquire into level of mechanization in Amravati District and its impact on farmers and on economy as a whole. The researcher also would want to enquire about the perspective and expectations of farmers in respect to farm mechanization in Amravati District and would also like to inquire whether the agriculture is sustainable without mechanization.

Objectives

1. To analyze whether the agriculture is sustainable without mechanization.
2. To study the role of government in popularizing mechanization

Methodology

The present study was conducted in Amravati District of Maharashtra. The data was collected from all the 14 talukas of Amravati district. The required secondary data for the study was collected from various publications. The researcher has taken the sample size of 800 for the research work.

Results and Findings

The Table 1 shows the mean cost and time for various operations in traditional farming and mechanized farming. All the operations of agriculture according to type of work done is grouped into six stages namely Land Preparation, Sowing, Crop Protection, Inter-cultivation, Harvesting and Post-Harvest. The data was collected from the respondents to get an insight into the difference in cost per acre and time taken for operation in traditional and mechanized way of farming. The table here shows that there is operation like Harrowing the cost er acre is less when we use the traditional way of doing but then when we consider time factor it becomes a right decision to go with mechanized ways. All the other operations are both cost and time effective in mechanized way of farming.

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Cost at various stages of operations
Table 1

S. No	Field Operations		Traditional Rs/acre	Traditional Time (Hr.)	Mechanized Rs/acre	Mechanized Time (Hr.)
			Mean	Mean	Mean	Mean
1	Land Preparation	Ploughing	1252.31	24.00	1098.57	2.00
		Harrowing	719.51	24.00	603.12	0.5
		Rotavator/Vafe	0.00	0.00	604.23	1.00
2	Sowing	Sowing	900.72	2.00	749.65	1.00
3	Crop Protection	Spraying	203.93	12.49	174.59	.00
		Irrigation	504.18	24.00	300.00	24.00
4	Inter-cultivation	Weed Control	2521.13	24.00	2525.62	24.00
		Aeration/ Soil Mulching	856.95	24.00	458.51	0.00
5	Harvesting	Threshing	301.68	24.00	286.70	24.00
		Man. Harvesting	1754.75	24.00	0.00	0.00
		Combine Harvester	0.00	0.00	1522.83	1.00
6	Post-Harvest	Local Transport	40.88	0.00	41.86	0.00
		Market Transport	79.23	0.00	77.86	0.00
		Grading/Sorting	78.64	0.00	78.78	0.00

The Table 2 shows the yield of various crops when the farming was done using traditional method and when it is done in a mechanized manner. The table also shows the income from the produce. The amount per quintal set for calculating income by traditional method is set at current price so that the amounts are comparable. We observe a huge increase in yield of major crops viz. Cotton, Tur, Chana and Wheat while using mechanized way of farming whereas there is hardly any change in yield of Moong, Udid and Soyabean by the way of farming we do. The yield of Cotton has increased almost three-fold suggesting that use of high yield seeds, improved productivity, reduced cost of cultivation. timely operations, and improved utilization of other inputs has led to this point. We can conclude from the table that agricultural mechanization has helped in increasing production, productivity as well as profitability in the agriculture.

Yield & income in Traditional & Mechanized Farming
Table 2

S. No	Parameters	Traditional Yield (In Quintal)	Traditional Amount (Rs. per Quintal)	Mechanized Yield (In Quintal)	Mechanized Amount (Rs. per Quintal)
		Mean	Mean	Mean	Mean
1	Cotton	2.63	26325.00	8.16	81587.50
2	Soyabean	5.06	30360.00	4.58	27487.50
3	Tur	2.16	14023.75	4.17	27113.13
4	Chana	4.16	18703.13	6.69	30088.13

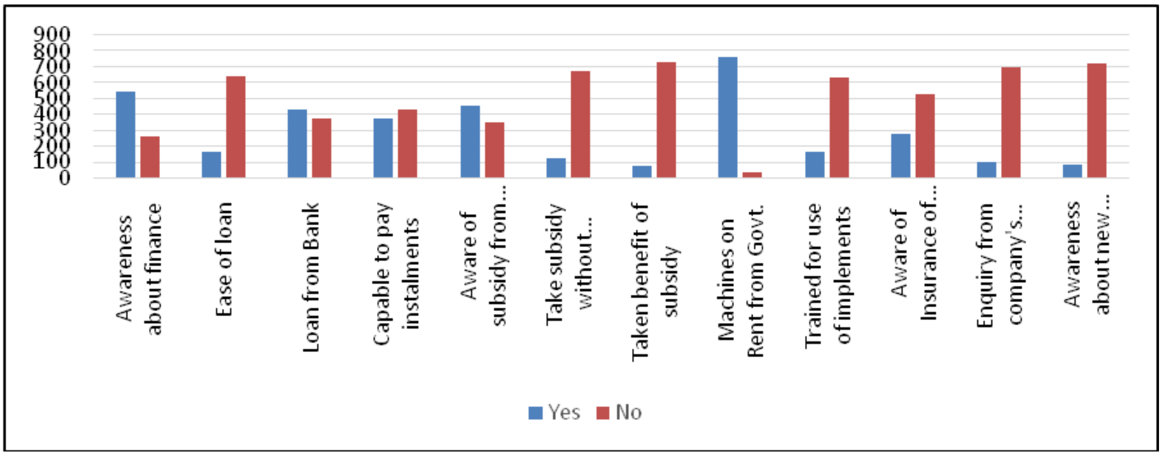
5	Moong	2.04	13846.50	2.08	14118.50
6	Udid	2.05	13940.00	2.15	14594.50
7	Wheat	7.02	17550.00	14.73	36821.88
8	Vegetables	3.53	7050.00	6.07	12140.00
9	Fruits	3.53	7055.00	6.18	12357.50
10	Flowers	3.65	7297.50	6.00	12002.50

Looking at the results received during research study in table 1 and 2 we can clearly find out that agriculture will not be sustainable without mechanization.

Table 3

S. No.	Information	Yes	No
1	Are you aware about institutions providing loans to buy agriculture machineries	541	259
2	Are loans for agricultural machines available easily to you	163	637
3	Have you arranged for loans/finance from bank?	428	372
4	Are you able to pay your loan instalments regularly?	376	428
5	Are you aware of subsidies given by government for buying agriculture machineries?	453	347
6	Can you avail the subsidy for buying machines without any difficulty?	123	677
7	Have you availed subsidy on purchase of any agricultural implements?	69	731
8	Are you aware that agricultural machines are available on rent?	766	34
9	Are you trained/educated on usage of agriculture machines?	166	634
10	Are you aware about the insuring of agricultural machines?	273	527
11	Does the representative of company manufacturing implements enquire about your requirement or problems faced in use of machine?	101	699
12	Do government agencies educate you about availability of new machines?	78	722

Figure 3 General Awareness



The Table3 shows the general awareness level about loans, subsidy and government schemes offered to the respondent farmers and the Figure 3 shows the information graphically. From the survey the researcher concludes that respondents are aware of loans available, subsidies granted and other schemes but they are not easily available to them. One thing to be noted and to be focussed is 634 respondents have got no training before using any agricultural machine either by the company or by the government agencies. Researcher has observed one thing that 428 respondents who have availed loans are mostly not for agricultural machinery but general agriculture loan taken by them.

Conclusion

The researcher in the study concludes that government needs to have better communication or promotional strategies so that the schemes, policies and subsidies granted or introduced by them make a reach to general public. In order to achieve sustainable development government must provide better training and education to make optimum use of available resources and achieve maximum production and returns. The researcher from the research also concludes that the agriculture will not be sustainable any more without mechanizing the farms looking at the difference in yield and costs by traditional and mechanized ways of farming.

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"Retraining and Skill Building ofIndian IT Employees : A Study to Manage Attrition"

Ashima Joseph
Assistant Professor Department of Management Sciences and Research
G. S. College of Commerce and Economics, Nagpur (Autonomous)
Dr. Anand Muley
Assistant Professor Department of Commerce J.M. Patel Arts Commerce and Science College, Bhandara

ABSTRACT

As businesses scramble to capitalise on the ongoing digitalization boom and prepare a staff that can manage a rising slate of transformation projects, retraining and upgrading personnel appears to be an IT firms strategy to address the shortage of digitally skilled employees. The process of retraining entails learning new skills necessary for a completely different vocation.According to a research jointly released in 2022 by the business advocacy groups FICCI and NASSCOM, 37% of the Indian workforce is employed in positions that need radically diverse skill sets.This study aims to determine the skill gap and the necessity to build new skill and upgrade the workforce in order to manage attrition and to retain talent. The reports from IT behemoths like TCS, Infosys, Wipro, and HCL were taken into account by the researchers. The study demonstrates how contemporary trends in the IT industry are altering the dynamics of the current workforce and the way technology is implemented. The most in demand skills include Data Science,Full-stack development, Cybersecurity, Cloud computing Data analysis, Big Data, Machine Learning, Artificial Intelligence, Blockchain, and Robotic Process Automation. This study provides aninsightof technological advancements and its impact on the probability of sustainable development.The authors have tried toexaminethe requirement for a strong HR process for hiring and career advancementin order to manage attrition and retention of high-performing employees. The general research findings assist HR in adjusting to new and evolving technology.

Keywords: Retraining, Skill Building, Upgrading Skills, IT Employees, Employee Attrition, Employee Retention

I. INTRODUCTION

In 2020, 87% of CEOs reported having talent gaps, according to McKinsey & Company.In addition, the WEF predicts that by 2025, more than 40% of workers globally will need to reskill.According to Gartner, 33% of the abilities listed in the typical job description in 2017 have become obsolete in 2021. Thesignificant financial ramifications to all the companies who don't fill their talent gaps are at the risk of losing their market position or even worse. Those who emphasise retraining, however, can benefit from their efforts.

Why Is Retraining Vital for the Workforce of Today?

Retraining is the process of acquiring new skills required for a completely different career.It is the process of training someone a brand-new skill in order to transition into a new field that requires those resources and talentswithin their existing organisation or at a different business. With the rate at which new technologies are being introduced and the continuously increasing expectations of consumerism, retraining the workforce and future employees is becoming more and more relevant.Reskilling can give individual employees the opportunity to transition into other roles without adding to the effort,time and cost of recruiting new staff.

Upgrading and Skill Building

Upgrading describes an ongoing, unending learning process. Upgrading is the practise of giving a worker, more sophisticated skills through more education and training.To improve the abilities and output of their employees, leading firms increasingly place a great deal of importance on short-term courses, skill building modules, training and upgrading sessions. Employee engagement is the best way to stay current and relevantand to close the talent gap. It is challenging to identify competency and skill shortages forretaining the workforce to build a solid framework at the HR corporate policy level. Talent management is crucial for the creation of future technology experts, and organisations should be prepared to invest in employee career advancement. According to a NASSCOM poll, organisations intend to raise their digital investments by 30% on average with cybersecurity, cloud computing, mobility, AI/ML, IoT, and edge computing taking the lead.

II. REVIEW OF LITERATURE

According to NASSCOM(July 2017) the Indian IT sector employed about 4 million people in order to remain relevant in the face of automation, roughly 40% of them need to reskill within the next five years.

According to Richa Verma and Dr. Srinivas Bandi (May 2018) the IT Companies must develop a reliable mechanism to analyseindustry trends &new technologies, educate the current workforce about new or developing technologies, evaluate the results after retraining and take any necessary action to increase adaptability.

According to a joint study by research firms ICRIER and LIRNE Asia (Jan 2018) around 70–80 percent of jobs in India might potentially be outsourced. Businesses hesitant to use freelancers for their workwere still unable to recognise the advantages of outsourcing to independent consultants.

F.S. Haghseta (2003) examined howIT tool and sustainability goals are interlinked. He also identified important organisational settings, barriers&customisation of the IT tool to solve these problems. The great potential of IT for sustainable development could be harnessed with the intervention of strategic evaluation of these components.

Ashutosh Seth, CEO and co-founder of expert-led video interview platform Risebird, asserted that retraining in general may be challenging to accomplish and time-consuming. On the other hand, upgrading has its own set of difficulties. "Employees frequently take use of the company's benefits to upgrade their skills before transitioning to higher-paying positions. Learning new skills is a dangerous investment".

The NASSCOM annual HR survey report (2015) highlighted the importance of acquiring new skills with India as the world's largest expanding digital hub.

III. OBJECTIVES

1) To identify the skill gaps of the most in-demand skills among the IT employees
2) To study the retraining and skill building programs offered by top four IT Companies

IV. RESEARCH METHODOLOGY

Samples Selection:This paper only takes into account the samples of top four IT Companies TCS, INFOSYS, WIPRO and HCL from across India. Various peer-reviewed journals, articles, companies fact sheets,websites, the internet, and research papers, have been used to acquire secondary data.

V. DISCUSSION

According to IT industry group NASSCOM, rising cyberattack incidences and worldwide data protection initiatives are likely to open up a USD 35 billion revenue opportunity and employment prospects for roughly a million experts in India by 2025.

IT company hiring in India up by 8.2%. India's four Information Technology majors Tata Consultancy Services, Infosys, Wipro, and HCL have respectively hired 35000, 40,000, 14,000 and 18,000 freshersin FY 2022.

Data Analysis

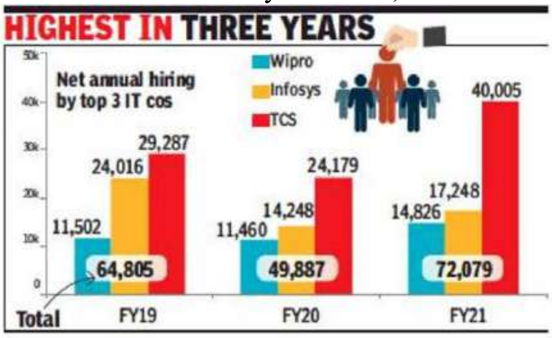
Cumulative Hiring in the Fiscal Years 2021, 2022 and 2023

Company Name	Hiring in FY 2021	Fresh Hiring in FY 2022	Expected Hiring in FY 2023
TCS INFOSYS WIPRO HCL	97000	105000	157000

Source :Companies Websites &Fact Sheet

The quantity of new hiring made in the fiscal years 2021 and 2022 has been directly impacted by the retraining of current workers.Due to a looming global economic uncertainty, companies plan to double down on training programs for their existing employees to improve their utilization levels.

Hiring by TCS INFOSYS & WIPRO in the fiscal years 2019,2020 and 2021



Source :Companies Websites &Fact Sheet

Skill Building Focus by Top Four IT Companies in India

Company Name	Focussed Skills
TCS	The Talent Cloud to function as an algorithmic marketplace that successfully matches any project—internal or external—with workers or contractors who have the necessary capabilities and skills.
INFOSYS	To increase involvement in key deals and scale digital transformation projects with significant sales investments.
WIPRO	Full Stride Cloud Services, developed by Wipro, integrates consultancy and technology know-how with Cloud Studio-based resources.
HCL	HCL Technologies gearing up for its Amazon Web Services (AWS) Business Unit.

Source :Companies Websites &Fact Sheet

Retraining Efforts by Top Four IT companies in India

Company Name	Retraining Programmes for Employees
TCS	To offer its employees hands-on training, accurately measure their technological proficiency, and re-skill/upskill them for upcoming projects, TCS will use “Nuvepro : hands-on labs,” a representation of a real-world production-like environment.
INFOSYS	“Reskill and Restart”, powered by Infosys Wingspan, leads job searchers on a guided journey that starts with an aptitude and skills assessment, continues with customised training for jobs that match their talents, and ends with matching them to open positions. The consortium of partners has created new channels for individuals to move from conventional positions in numerous sectors and workstreams to the digital and operational roles of the future. On this multi-stakeholder integrated platform, it also enables businesses who are scaling up to examine the talent pool to find the best match and recruit them while they go through quick and job-specific retraining.
WIPRO	The three new programmes, “Cutting Edge, UpScale, and ACME (All-round Capability Model of Excellence)”, are a part of a push for multidisciplinary skill development. (ACME) has five skill dimensions. Of course, technology is one. Domain is the second. The functional areas make up the third dimension.

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	The fourth include the quality procedures & Agile approaches. The fifth category is behavioural skills.
HCL	A classroom training programme called "iBelieve" created by HCL to reskill workers, particularly women, who leave the profession but wish to return to the technology workforce. The curriculum gives candidates training in contemporary technology concepts to prepare them for the 21st century. "HCLTechTSS" (HCLTech Training & Staffing Services) builds the crucial link between deserving talent across the nation and open positions that are challenging to fill because of a skills shortage.

Source :Companies Websites &Fact Sheet

The most in-demand skills in the following fields are:

1) Data Science: Data scientists are an interdisciplinary field that employs scientific methods, algorithms, processes, and systems to extract knowledge and insights from structured and unstructured data in order to develop novel solutions for use in a variety of domains.
2) Full-stack developers: Engineers who manage all the work associated with servers, databases, systems engineering, and clients are known as full-stack developers.
3) Cybersecurity services: The protection of IT infrastructure, edge devices, networks, and data is the main duty. They offer engineering solutions to stop data breaches, keep an eye on attacks, and respond to them.
4) Cloud computing: Cloud architects the main and supporting elements of cloud. These are cloud engineers and professionals who can use the cloud.
5) Data analysis: To increase productivityanalysts can identify security vulnerabilities or operational inefficiencies on performance statistics. Data engineers and database administrators work with data SQL, Statistics& Python.
6) Big Data: Since businesses are now data-driven there are more big data positions available every day like healthcare, education, manufacturing, real estate, finance, and telecommunications etc.
7) Machine Learning: A skill useful for programmers and data professionals, machine learning, a subset of artificial intelligence.
8) Artificial Intelligence: The AI abilities are being used in a variety of sectors, including the IT, automotive, defence, financial, healthcare, and educational sectors.
9) Blockchain: It is a distributed ledger technology in which hashes, a type of cryptographic signature, are used to record transactions. The technology is utilised in a variety of industries, including peer-to-peer energy trading, cryptocurrency, and financial services.
10) Mobile App Development: More than 4 billion people use mobile phones worldwide, making mobile apps a trend that will endure.
11) Robotic Process Automation: RPA is a software technology that makes it easy to build, deploy, and manage software robots that emulate humans actions

VI. FINDINGS

1) Employees are essential to the success of the businesses; their openness to change is crucial. The ability to demonstrate the value addition that retraining offers in the long run is a requirement for HR or stakeholders.
2) Due to increasing hiring, the companies continue to meet their obligations, even though attrition has increased as a result of the high IT sector growth and supply constraints. IT leaders are growing quite concerned about employee attrition. The software industry's needs are constantly growing, but one of the side effects that the business must continually address is attrition rate management. Because of digitization and rising demand, workers are drawn to better prospects. Gartner, a research company, reports that the attrition rate increased from 10% to 20% in 2021.
3) As long as any negative linkages are discovered and sufficiently addressed, IT can be used to accelerate transitions to sustainability.

4) Retraining aids in retention because doing standard tasks in the IT field can oftentimes become redundant. Better employability, improved collaborations between peers and senior managers, higher creativity and innovation, increased agility are just a few of its advantages.
5) Upgrading will not only protect against redundancy, layoffs, and furloughs, but it will also empower the human capital to assist their company in fulfilling market demands and providing efficient customer result.
6) Skill building ensures a stable career in order to correspond with the expectations of a dynamic and evolving employment market.
7) In this post-Covid 19 era, upskilling has become easier due to the rise of E-learning platforms, digital channels, and easy access to industry experts. Employees find these learning and development programs to be more accessible and productive than standard training programs. Virtual learning with its extremely interactive, engaging, and scalable attributes is the finest alternative.
8) IT professionals can also save time and money by the online training programs, for more cost-effective to costs incurred on travel, lodging, and paying high fees to gain knowledge individually from professional coaching.
9) Skill building and retraining prove beneficial for IT companies as these prevent layoffs & rehiring to make up for any skill shortfalls and minimize staff turnover.

VII. CONCLUSION

IT has a significant amount of potential to effectively eliminate obstacles to sustainable development if potential restrictions are detected and successfully addressed.While participating in retraining or skill building programs, there is a chance to make discoveries, achieve breakthroughs, or come up with original ideas that may later develop into profitable projects. Employee initiative is frequently recognised, promoted, and rewarded by employers as a result of workforce skill enhancement, which raises the IT company's internal customer satisfaction index. Hence, businesses that recognise the importance of employee engagement usually promote a culture in which managers serve as growth mentors for their workers, who are continually rising up the learning curve. Top IT companies which strive to build an environment with knowledge and experience that promotes ongoing training and skill development programs will result in a win-win situation for the business and their employees.

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A Study Of The Role Of Ngos In Sustainable Development

Dr. Ashok H. Dhote
Taywade College, Koradi, Dist. Nagpur

Abstract:

Many countries of the world have adopted the goals of sustainable development to change the scenario of the world by the year 2030. While the framework for sustainable development is a complex necessity, it is also a boon for meeting specific goals. Sustainable development has been adopted in theory, but we are still far away from the goal of adopting the practical form. The practical goal of action can be achieved only when we conserve our resources. The term sustainable development was coined in the mid-1980s. However, since its inception, its concept has been constantly changing. More dynamic and ever-changing governance structures in the national and international arena have encouraged the increased involvement of non-state actors in policy formulation and implementation. There has been an increased demand for citizen participation in national and international environmental policy-making. There has also been an increase in the number of non-governmental organizations and corporations focusing on ecological and sustainability issues. In this research paper, the role of non-governmental organizations in sustainable development has been studied.

Keywords: Environment, Sustainable Development, Non-Governmental Organization, Economic Growth, Environmental Organization

Introduction:

There is a developed belief that economic development alone is not enough. The economic, social, and environmental aspects of any action are interrelated. Considering only one of these at a time can led to errors in judgment and lead to 'unsustainable' results. Focusing only on profit has led to social and environmental harms that have affected society in the long run. Through this signal, the environment should be taken care of and the services needed by the people should be provided, which depend on the least economic resources. The reality of the matter is that we depend on the ecosystems and services that provide us with which we function. We cannot escape the conclusion that we are dependent on the environment for our existence. If we harm or destroy the environment's ability to provide these services, we may face consequences for which we are completely unprepared. In the same way, the long-term sustainability and success of societies depend on a healthy and productive population. A society that faces unrest, poverty, and disease will not develop in the long term. Social welfare and economic welfare are related to each other's development and the whole system depends on a healthy biosphere in which we live. Therefore, sustainable development is a difficult topic for societies to grasp, as it covers a wide range of issues. Due to the definition and complexity of the subject, it is best to examine its importance holistically to be able to understand it simply. The population is the main factor driving sustainable development. Therefore, the importance of sustainable development can be seen from this point of view.

It is noteworthy that the Government of India is committed to the Sustainable Development Goals, as India is moving towards a target of increasing renewable energy capacity from 1,75,000 MW by 2022 to 4,50,000 MW by 2030. In the past, many big efforts were made for sustainable development in Kutch of Gujarat. They include a desalination plant and a hybrid renewable energy park. A growing population means the agricultural sector needs to be strengthened. Finding ways to feed more than 3 billion people can distract us. If similar cultivation, planting, irrigation sprinkler, and harvesting techniques were used in the future, they could prove to be economically burdensome as projected to run fossil fuel resources. Sustainable development focuses on sustainable agricultural practices such as efficient agricultural techniques and crop rotation to promote high yields while maintaining the integrity of the soil, which produces food for a vast population. Climate change can be reduced by sustainable development actions. Sustainable development aims at reducing the use of fossil-based sources of fuel such as oil, natural gas, and coal. Fossil fuel sources of energy are discrete, as they will be exhausted in the future and are responsible for the spread of greenhouse gases.

Today's era is the era of economic growth and competition, in which the focus is only on economic growth in developed and developing countries. But India is the only country which is emphasizing balancing nature, environment, and development together. But it should be noted that there are two main enemies of sustainable development, one is the competition for economic growth and the other is population growth. The result of this is that today sustainable development is being hindered and from time-to-time man has to face the wrath of nature because man has accepted it as his right to exploit nature. Today the concerns of various NGOs are focused on various areas such as social issues, health issues, and environmental issues. NGO is a broad term, which includes charity organizations, advisory societies, and various other professional organizations. NGOs in India are spread all over the country and have close links with the communities. They are involved in the entire spectrum of developmental activities, from creating environmental awareness to watershed development. From disaster management to sustainable livelihoods; Joint Forest Management gives inputs to policies. They range from clubs that encourage nature camps to agencies that undertake research and monitoring.

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

- To study the role of non-governmental organizations in sustainable development.
- To study the importance of non-governmental organizations for sustainable development.
- To study theconcepts ofsustainable development.

The Role of NGOs in Sustainable Development:

There are a large number of non-governmental organizations in India and other countries specifically working for the environment, conservation, and awareness. The number of these NGOs that are actively involved in environmental protection in our country is, in fact, more than in any developing country. Increasingly, governments are looking at NGOs not only as agencies that will help them implement their programs but also as partners in shaping policy and programs. NGOs are now playing an important role in sustainable development, formulating environmental policy, mobilizing public support for environmental protection, and protecting forests and endangered species of animals. Through driftnet monitoring, public education, and action by environmental organizations such as Earth Watch and the Sea Shepherd Conservation Society, they succeeded in banning the driftnet system internationally. Issues such as environmental protection, sustainable development, and a future of zero population growth are some of the major concerns of environmental NGOs. Environmental policies will achieve positive results only when they are focused on local issues and solve the problems of local people. Policymakers should keep in mind the needs of the people while formulating policies and implementing environment-friendly projects. Unless the needs of the people are recognized and supported, sustainable development cannot be achieved. Policy-makers and administrators should take care in the selection, financing, and implementation of projects that aim to promote social welfare. They should not encourage enterprises to promote private ownership and cooperation. Some of the international environmental organizations working on sustainable development and the environment are Greenpeace, Worldwide Fund for Nature, Earth First, etc.

Greenpeace is an eco-friendly international organization that aims to promote environmental awareness. It is an independent, advocacy organization that addresses environmental abuse through direct, nonviolent confrontation with governments and companies. It highlights global environmental problems and provides solutions for a healthier environment. Greenpeace focuses on the most significant worldwide threats to our planet's biodiversity and environment. Extensive use of oil, gas, fuel, and other energy resources leads to climate change, resulting in global warming. It is conducting research to prevent climate change and promote clean energy solutions. Many forests of the world are in danger. The people living in forests and depending on them for their livelihood are also at risk. Greenpeace takes the responsibility of saving forests and provides solutions for the same. Greenpeace's Oceans campaign currently focuses on four major threats to the world's oceans:

overfishing, pirate fishing, whaling, and intensive shrimp aquaculture. Commercial whaling has resulted in a decline in the world's whale population. To stop commercial whaling, Greenpeace is working on several fronts. Greenpeace campaigns against the use of nuclear power because its use has never been peaceful.

The World-Wide Fund for Nature (WWF) is an international organization for wildlife conservation, which focuses on protecting specific species of wildlife. As the range of its activities expanded, the international organization felt that its name no longer reflected the scope of its activities and became the Worldwide Fund for Nature in 1986. But affiliated groups in the United States and Canada retained the original name. The organization is now simply referred to as WWF WWF-India is committed to protecting and preserving the already degraded and threatened natural ranges in the country. The organization is dedicated to the conservation of the natural habitat and ecosystem in India today. WWF-India was established in 1969 as a charitable trust. WWF-India is one of the largest and most experienced conservation organizations in the country with its network of State/Divisional and Field Offices spread across the country to implement its programs. The organization is part of the WWF family along with 27 independent national organizations. The coordinating body, WWF International, is based in Gland, Switzerland. To adapt to India's specific ecological and socio-cultural situation, WWF-India in 1987 expressed its mission as: "Promoting nature conservation and environmental protection as the basis of sustainable and equitable development.The WWF- India mission has five broad program components: promoting India's ecological security; Restoring ecological balance, conserving biological diversity, ensuring sustainable use of the natural resource base, reducing pollution and wastage, promoting sustainable lifestyles, WWF-India field programs, public policy, education, communications, NGO networking and implements its conservation programs through resource mobilization.

The Bombay Natural History Society (BNHS), established in 1883, is recognized as one of the most important conservation research organizations in the world. It aims to collect data on natural history specimens from across the sub-continent. To disseminate knowledge of flora and fauna through lectures, field visits, literature, and expeditions and to study wildlife-related problems and recommend management plans for the conservation of wildlife and its habitat. It also studies some endangered species of wildlife and their habitat and imparts knowledge and awareness about the need for the conservation of wildlife through environmental education.

It has undertaken several projects in collaboration with peer organizations, both local and foreign, on birds, reptiles, mammals, natural history, and the impact of developmental programs on wildlife.

Delhi-based Vikas Vikalp Group works in all parts of the country. It was established in 1983 to design alternatives and promote sustainable development through programs of economic efficiency, equity and social justice, resource conservation, and self-reliance. Its activities cover the whole nation: it is working in the fields of pollution monitoring and control, waste recycling management, wasteland development, and appropriate technology.

Energy Research Institute, established in 1974, is a fully independent, non-profit research institute. Its mission is to develop and encouragepolicies,technologies, and institutions for the effective and sustainable use of natural resources. It is imparting environmental education through projects, workshops, audio-visual aids, and quiz competitions. It deals with policy-related work in the energy sector, research on environmental topics, development of renewable energy technologies, and promotion of energy efficiency in industry and transport. TERI also has a major program in biotechnology, the applications of which are oriented towards increasing bio-production, conversion of waste into useful products, and reducing the harmful environmental impacts of many economic activities. TERI established TERI University in 1998.The university is a unique institution of higher learning, especially for programs leading to Ph.D. and master's level degrees. Its uniqueness lies in the wealth of research conducted within TERI as well as by its faculty and students to make it a truly research-oriented university.

NGO participation provides them with a favourable base in preparation for international, regional, and global meetings, where they highlight key issues affecting government agendas, enabling them to interact (formally and informally) with government officials and provide productive content on official subjects. When given the right opportunity, time, and space, NGOs can have intimate interactions with states within the limits of their national boundaries, thereby influencing the states. Otherwise, they would not be able to do so without interaction. NGOs have over the years responded to the socio-economic development agenda of the government. Thus, when the government shifted focus from capital-oriented development to anti-poverty programs, NGOs launched a direct assault on poverty, breaking away from welfare and service delivery interventions. Subsequently, in the 1990s, as the state moved towards macroeconomic and structural reforms, NGOs began to focus on expanding their activities. It worked with the state to develop innovative approaches and ensure conforming policy changes. They also took up advocacy and lobbying, enhanced networking, expanded their range of operations, and targeted marginalized groups.

NGOs in the environment changed the goals of the state and nongovernmental organizations, especially in the areas of empowering communities, encouraging participation, strengthening democratic institutions, and improving access to basic services such as health and education. Environmental NGOs came about in response to the serious threat to air, water, and soil from industrial and agricultural chemicals. Environmental NGOs generally take up causes related to the environment such as climate change, air pollution, deforestation, depletion of the ozone layer, waste management, biodiversity and land use, energy, conservation, environmental degradation, and land degradation. Are.

Some prominent examples of environmental NGOs working in India are Green Peace India (Greenpeace India), Awaz Sanstha, Goa Sansthan, Sankranti India, Sansthan, Sansthan for Ecological Security, WWF India, and Winrock International India. The NGO has partnered with the government and industry to create a sustainable infrastructure for future growth. These organizations provide consultancy to industrial houses and corporations and actively engage with the government at various levels on developing eco-friendly and sustainable development policies. Some companies are collaborating with NGOsto implement their Corporate Social Responsibilities.

Conclusion:

Non-governmental organizations (NGOs) and other civil society groups are not only stakeholders in governance, but a driving force behind greater international cooperation through the active mobilization of public support for international agreements. There is a significant increase in the participation of civil society in global governance. The NGO movement has responded to different models of development in different ways. Some NGOs have implemented economic projects. Some monitor the social impact of resource development initiatives, while others monitor the environmental impact. Some distribute relief and social welfare services. Some help organize areas or communities. Additionally, some non-governmental organizations are opposing the use of pesticides and other harmful chemicals that pose a serious threat to the environment. Some are also working to develop alternative strategies. Finally, some NGOs are multi-sectoral, working on a range of issues, but all are related to some dimension of the sustainable development process.

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Operational Expediency Of Urban Co-operative Bank

Bharti Govindlal Khurana
Research Scholar
Dr. Manish B. Vyas
Research Supervisor Shri Nagpur Gujarati Mandal's Vmv Commerce, Jmt Arts & Jjp Science College (naac re - accredited b+)Email: vmvnagpur@gmail.com, Website: http://www.vmvnagpur.org
Wardhaman Nagar, Nagpur 440008

1. Abstract

The urban cooperative banks particularly in the states of Maharashtra, Gujarat, Karnataka have been functioning effectively since they were able to capitalize their inherent features such as (i) the close cultural and social affinity between the bankers and their local customers, (ii) non-participation in the corporate finance which are riskier than retail finance, (iii) non- participation in share and money markets, (iv) limited number of branches within the limited geographical area thereby minimizing the operating risks, etc.

This apart, their borrowers usually are of low profile and less commercially dynamic. The management t of these banks could obtain all the necessary credit related information from the people and offices since they are closely related to each other. As the consequence of these advantages the GNPA and NNPA were observed to be within the normative limits. The research clearly throws light upon their financial expediency the ratio of the apparent rate 0f return to the cost of funds was below the 1.5 evincing the comfortable margin. Further, the percentage of the NNPA had the positive correlation with the CRAR and that was as close as +0.91 revealing that erosion of the equity was adequately brought under the control as per norms fixed by the authorities.

2. Introduction

It is not exaggeration that the UCB'S i.e. Urban Cooperative Banks have demonstrated exemplary performance during the last two decades of the current century. They are the epitome of excellent banking with human face". Their face lift was hard and long. Their facial and functional transformation had been vivid and candid more significantly in the states of Maharashtra, Gujarat, Karnataka and some parts of M.P. Earlier, the UCB were unexceptionally dormant and distinctly docile. Yet, Prof. G.S. Kamath confidently organizations in highly constricted legislative and administrative frame work. Their elegant branches and responsive customer behavior of member have been endearing almost visitor remind the proposition predicted saying, "The cooperative banks in India although passing through teething troubles, superseded in their operation performance in the effectiveness and efficiency due to their simplicity and felicity it is a tortoise winning the race".

Strength of UCB's

Minutely monitored, critically controlled and wisely directed respectively by the Reserve Bank of India, the department of co operation of the state government and the board of director conversant in local conditions and power centre's these banks have gained functional strength in numerous ways mentioned briefly.

A. Generally, UCB's do not participate in huge corporate financing and thereby mitigate the massive credit risks;

B. Unlike commercial banks, these banks do not invest their funds in shares, stocks and derivatives whereby they remain protected from the colossal market risks and thus fortified from the enormous losses;

C. They rarely grants loans on long term basis, thus term lending for long terms assets is almost exceptional;

D. Customers, industries, or any business ventures outside the prescribed or specified geographical limits are not entitled to be eligible for any kind of accommodation;

E. These banks are judicially empowered to recover the amount with due process of law being administrated by state department;

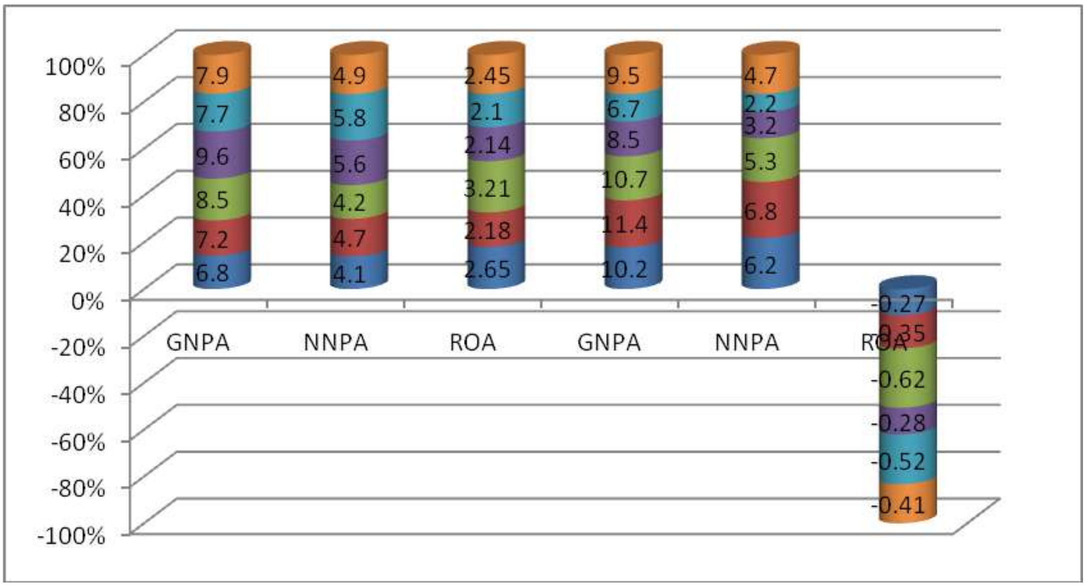
F. The directors, officers and employees are mostly local in habitants. That being so the identification of customers becomes the task easier.
G. These banks are found to be exceedingly ingenious in obtaining requisite and relevant information of their customers borrowers within no time on account of their board-based linkages.

S.N. Ramlinga Raju [2] remarked, “The most popular dictum-small is beautiful’- finds its comprehensive explication in the UCB’s which are now eventually turning the corner”. Thus the UCB’s are capable of minimizing the major risks, such as market risks interest risks, credit risks and even the operational risks, as much as possible.

Comparative Tendencies in Non-Performing Assets

TABLE 1: TRENDS IN RATIOS (Percentages)

	UCB			PSB		
YEARS	GNPA	NNPA	ROA	GNPA	NNPA	ROA
2017-18	6.8	4.1	2.65	10.2	6.2	-0.27
2018-19	7.2	4.7	2.18	11.4	6.8	-0.35
2019-20	8.5	4.2	3.21	10.7	5.3	-0.62
2020-21	9.6	5.6	2.14	8.5	3.2	-0.28
2021-22	7.7	5.8	2.1	6.7	2.2	-0.52
MEAN	7.9	4.9	2.45	9.5	4.7	-0.41



Sources: Economic Surveys 2022-23 and 2021-22, Government of India, New Delhi
GNPA – Gross Non-Performing Assets
NNPA- Net Non Performing Assets
ROA- Return of Assets
PSB – Public Sector Banks

Observations

1. The quinquennial mean of the GNPA in respect of UCB’s was 7.9 percent; whereas, it was 9.5 percent in respect of PSB’s the comparatively lower percentage of GNPA relating to the former is the matter of gratification the gravity of risk was more pricking due to enormity of funds in cases of PSB’s.

2. The percentage of GNPA ratio had moved upward in the case of both i.e UCBs and PSCs during the period of said quin-quenium, however a marginal fall in the percentage due to the deadly impact of the pandemic was patently visible, this fall might be attributed to the directions of the RBI to meet the constraints arising out of the dreadful situation;
3. The appreciable resilience was discernible in the movement of NNPA ratio for the UCBs, while it moved continuously downward evincing substantial improvement as a consequence of per chance better recovery by the PSB. During the said period under review;
4. Further, the quin-quenium mean of the NNPA ratio was almost similar for the banks in both the sectors.
5. The percentage of return on assets [ROA] continued to be negative and oscillating while it was always positive and stable in respect of the UCBs.
6. The quinquennial mean of return of assets (ROA) continued for the UCB's was around 2.5 percent it continued to move inclemently around -0.61 for the PSBs.

Thus, by all means, the quinquennial performance of the UCBs was incredible and distinctive as compared to PSB's.

7. The mea gap persistent between the GNPA ratio and the NNPA ratio was around 3.1 in the case of UCBs as against that of PSB 4.8, evincing thereby that the possibility of recovery is better, in the former as compared to the latter further the gap continued to be wider on YOY basis in the PSB, whereas it sustained stability in UCBs.

From these observations, it is evident that the UCBs could achieve better discipline in the most motivating and enlivening, despite the dreaded menace of Covid 19 the credit risks did not aggravate in both the sectors of the commercial banks. Prof. N.S. Soonawala [3] candidly remarked saying "the management of the commercial banks in almost all the sectors could appreciably regulate the tendency of delinquency among the reckless borrowers."

3. Objectives

Against the backdrop of above encouraging trends in improving the quality of assets by UCBs, it explicitly prompted to observe the performance of UCBs, it explicitly promoted to observe the performance of UCBs functioning in an individual and commercial centre of Nagpur, where not less 25 UCBs have been functioning despite the large number of branches of almost all commercial banks of India. It is imperative to pry acutely on the process of recovery of loans and advances for the sustenance of the bank. The operation of recovery is indispensable for the very existence of the organization, and hence, it ought to be swift and strong without losing the sight. In these circumstances, the paper keenly attempts to:

1. Assess the tendency in movements of GNPA and NNPA and their impact on the return on loans and advances in the UCB; any
2. Critically explore their impact on their equity capital.

4. Hypothesis

The requisite hypothesis, having explicitly realized, is formulated after reasonable consideration, may be mentioned in these words, "The positive improvement in the efforts of recovery of loans and advances had pushed up the capital risk adjusted ratio in UCBs.

5. Rationale of the Study

The tendencies obviously reveal the ultimate outcome of operations undertaken by the organizations. More often than not, there well-determined and reasonably decided activities are undertaken with pre-destined expectations which are adopted as the bench-mark for assessing the results. No sooner any special or peculiar change is realized appropriate corrective steps may be employed. Hence, all the concerned stakeholders with their distinct and distinguished views analyze these tendencies in different lights. In case of the UCBs even the borrowers also playing the legally recognized role of shareholders are rather compelled to view and review the rising NNPA in both the ways. The perspective of a borrower certainly vary from that of the shareholder. All the stakeholders are excessively concerned with the observed tendencies in the significant variables.

6. Limitations

Veritably, the study of the given subject has certain limitations which are inevitable and unavoidable. It concerns with the relevant financial data relating to the following randomly selected five cooperative banks from the city of Nagpur only:

1. The Tirupati Urban Cooperative Bank Ltd [TB]
2. The Shikshak Sahakari Cooperative Bank Ltd [SSB]
3. The Shri Ram Urban Cooperative Bank Ltd [SRB]
4. Nirmala Cooperative Bank Ltd
5. Dr. Baba Saheb Ambedkar, Urban Cooperative Bank Ltd [BAB]

- It considers the data from above cooperative banks for the period of five years2017-18 to 2021-22
- It confines only to the secondary data obtained from the financial statements published for public circulation;
- It communicates the views externally since the information regarding internal matters is never disclosed in those public documents.

7. Research Methodology

For the purpose analyzing the relevant published financial data in consonance with the specified objectives the simple and common techniques have been applied and are explained below in brief. Those are not mandatory yet obligatory. The results emerging from the application of these tools may be questioned though these tools are logically and mathematically sound and substantive.

a. Recoverability potential

It is a well-acknowledged fact that GNPA are always higher than the NNPA, while the gap between them explains the possibility of recovering those loans and advances if warranted actions were judicious taken by the management. Whenever this gap tends to expand it enlivens the additional possibility of recovery of bad loans. The members may question the details of expansion in the gap. It is worked out in the following manner:

Recoverability Potential = [GNPA –NNPA] ÷ [GNPA] × 100
GNPA = Gross non-performing asset [bad loans and advances]
NNPA = Net non-performing assets.

b. Financial Efficiency Ratio

Long ago, Spencer Trucker [4] had enunciated this ratio advocating that "this ratio should have been continually and inclusively applied by the financial institutions to measure the financial efficiency of the business." The appropriateness is beyond doubt and adopted with renewed nomenclature.

The basic financial wisdom suggests that the return on funds invested should never be less than the cost of funds as high as possible. In case of commercial banks subject to the International Accounting Standards and mandatory accounting refinements, the return of loans and advances should be higher than the cost of deposits. The ratio among them is named as 'financial efficiency ratio.

Financial Efficiency Ratio = (Apparent annual return on asset) ÷ [Apparent annual cost of funds]
Where as
Apparent annual return on assets = [Total Annual Interest Income] ÷ [Loan Outstanding]
Apparent annual cost of funds = [Total Annual Interest expenses] ÷ [Time and Demand liabilities]

Financial efficiency ratio to the most fundamental measure of the internal financial strength and should have been under the vigil of the management. The return of assets [ROA] specified in the annual financial statements is subject to the accounting policy, the international accounting standards prescribed by the Institute of Chartered Accountants of India and allied statutory notification by the Company Law Board. These disclosure policies and practices are the reasons for the variation between the financial efficiency ratio and the return on assets.

c. Correlation between NNPA and CRAR

The coefficient of correlation between the percentage of NNPA and the CRAR was worked out to find how far both of them linked with each other. The standard deviation between them was worked out to the coefficient of correlation. It helps to authenticate the truth of the hypothesis.

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Probable shrinkage in the equity capital consequent upon the degradation of assets has been the matter of great concern. The tendency of the movement of the NNPA creates an inevitable impact on the capital risk adjusted ratios. This has been analyzed by the co-efficient of co-relation between two variables namely financial efficiency ratio and the CRAR in respect of the selected UCBs in Nagpur.

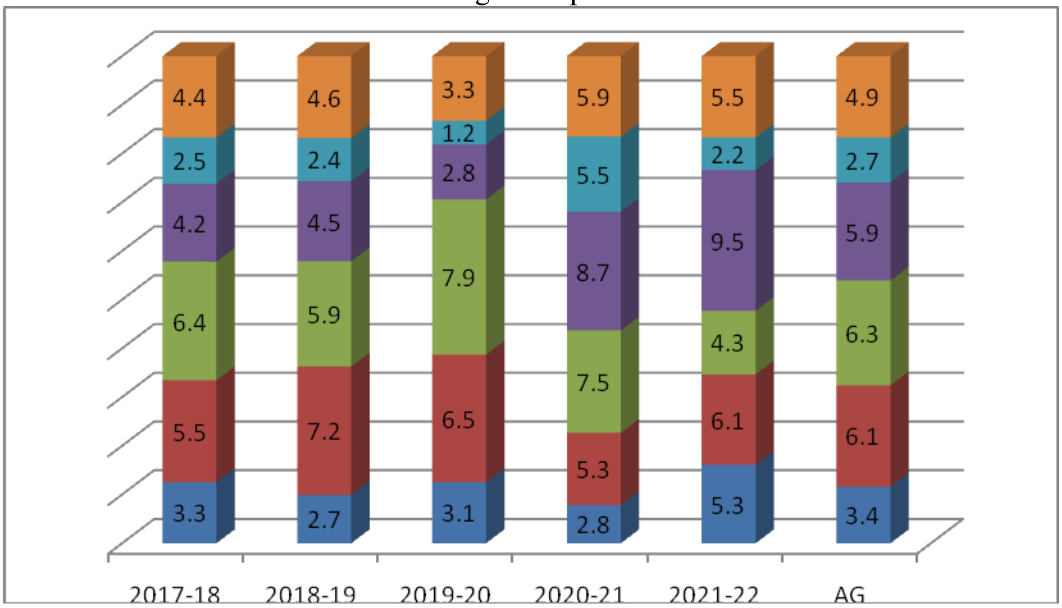
8. Analysis of Data

The secondary data regarding the GNPA and NNPA was collected from the published financial reports of the selected UCBs from the city. The analysis was undertaken in the following variables for the period under review.

TABLE 2 GAP BETWEEN GNPA AND NNPA

YEARS	2017-18	2018-19	2019-20	2020-21	2021-22	AG
TIRUPATI UCB	3.3	2.7	3.1	2.8	5.3	3.4
SHISHAK S.B	5.5	7.2	6.5	5.3	6.1	6.1
SHRI RAM UCB	6.4	5.9	7.9	7.5	4.3	6.3
AMBEDKAR UCB	4.2	4.5	2.8	8.7	9.5	5.9
NIRMAL UCB	2.5	2.4	1.2	5.5	2.2	2.7
ANNUAL AVERAGE	4.4	4.6	3.3	5.9	5.5	4.9

AG: Average Group



Observations

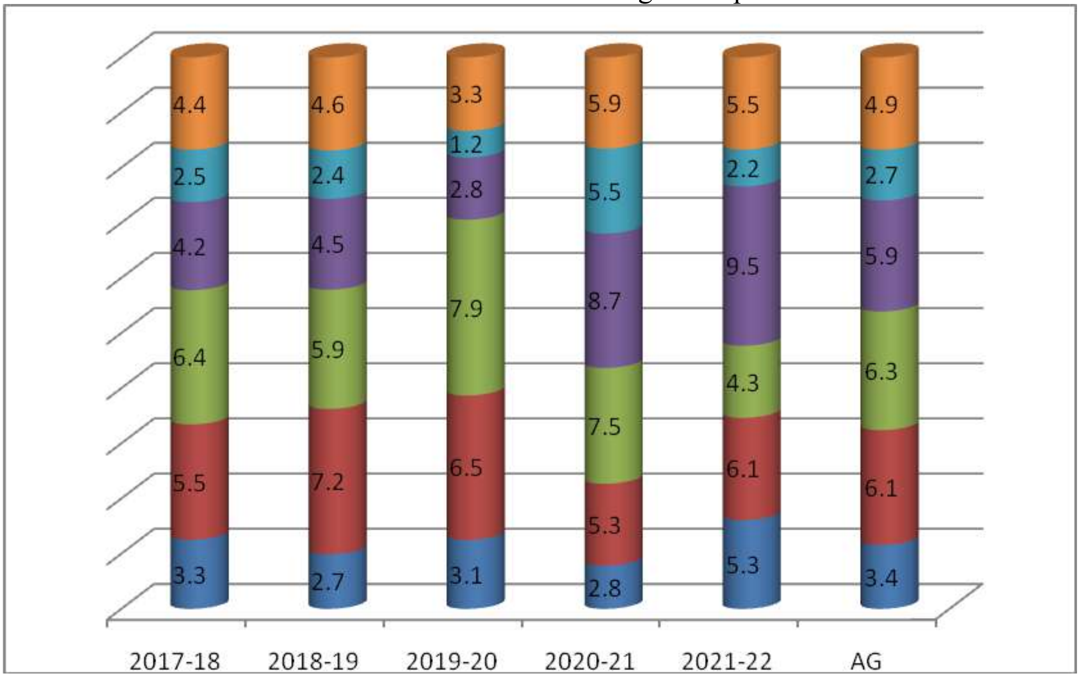
[1] The average annual gap between the GNPA and NNPA in respect of the selected UCB's was approximately 4.4 percent in the year 2017-18, which widened to marginally to 4.9 percent in the year 2021-22; it perceptibly decreased to 3.3 during the pandemic year;
[2] The average annual gap was as high as 6.1 percent in the Shri Ram UCB Bank and as low as 2.7 percent for the Nirmal Cooperative bank smaller in operation than the former;
[3] During the dreaded year of Covid 19 except the Shishak Cooperative Bank ltd, all other banks explicitly reduced the gap in response to the directions of the RBI for the Covid period;
[4] The range of changes in annual percentages of the gaps had been subdued in all the Cooperative banks under the sample; in other words the gap was never alarming as being normally claimed;
[5] Among the sample cooperative banks, the Baba Saheb Ambedkar Cooperative Bank Ltd have patently evinced sharp fluctuation in yearly gaps.
[2] Financial Efficiency Ratio

The financial efficiency ratio expressed in terms of times as explained earlier, is presented in following table 3 for the period of five years for all the UCBs included in the sample for the study. This ratio was calculated as explained earlier in respect of all the sample banks for the period under review and presented in Table 3 below.

TABLE. 3 FINANCIAL EFFICIENCY RATIO (in times)

YEARS	2017-18	2018-19	2019-20	2020-21	2021-22	AG
TIRUPATI UCB	1.8	1.6	1.4	1.5	1.3	1.7
SHISHAK S.B	1.6	1.8	1.9	1.7	1.8	1.8
SHRI RAM UCB	1.4	1.2	1.3	1.6	1.8	1.5
AMBEDKAR UCB	1.7	1.6	2	1.7	1.9	1.8
NIRMAL UCB	1.1	1.3	1.3	1.2	1.4	1.4
ANNUAL AVERAGE	1.5	1.6	1.6	1.4	1.6	1.5

AG: Average Group



Relation between CRAR and NNPA

Observations:

The relationship between these two variables is shown in the adjacent table which reveals the following facts.

a. The average CRAR continue to remain by enlarge, steady and stable during the period under the review; it was 14.6 percent during the year 2018-19 but went down to 13.8 percent in the year 2021. However, it moved little upward in the subsequent year by 1 percent only which was not significant.

b. The Standard Deviation of CRAR for the period of five years was approximately 3.13

c. In so far as the average NNPA was concerned, it also came down to 9.7 percent to 8.6 percent indicating the marginal decrement.

d. The Standard deviation of the NNPA for the period came to 3.02

e. Accordingly, the co efficient of correlation between CRAR and NNPA was significantly 0.93 showing positive and harmonious relationship between these two variables.

To sum up the co efficient of correlation the conclusively tells that both the variables were positively related.

TABLE 4: AVERAGE CRAR AND NNPA (%)

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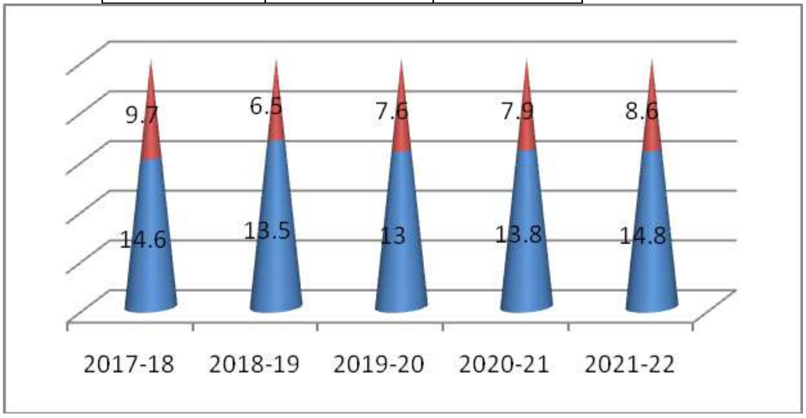
YEARS	AVG CRAR	AVG NNPA
2017-18	14.6	9.7
2018-19	13.5	6.5
2019-20	13	7.6
2020-21	13.8	7.9
2021-22	14.8	8.6



The recovery potential was exceeding fair and capable of becoming standard assets. Their recovery potential is safe and secured.

Observations

[1] The quinquennial average for all the units in the sample was about 1.5 which is neither malicious nor inexpedient threatening the level of sustenance.

[2] Moreover it does not reflect sharp undulating tendency and remained by and large stable and steady. All the UCBs under review evince sustainable financial efficiency, which could have be boosted by penetrative strategies of banking.

[3] Among all the UCBs under study; only the Nirmal UCB had somewhat lower financial efficiency while the Shishak Shahakari Bank and the Baba Saheb Ambedkar UCB had achieved higher financial efficiency ratio.

[3] Co-efficient of co-relation

9. Conclusions

This purposive survey leads to the following conclusions:

The urban cooperative banks have be invigorating their systems and procedures on the one hand and enlivening their administration in line with the competing commercial bank because the gap between the GNPA and NNPA was never abnormal or exceptional in comparison to the commercial banks;

Their apparent rate of return on loan and advances was satisfactorily higher than the cost of funds; and there is positive co relationship existed between the capital and risk adjusted assets and the percentage of NNPA.

10. Suggestions

[1] These UCBs are now required to push up the property to provide loans and advances to non-priority sectors which are more productive and profitable and

[2]In order to improve the recovery process UCB the must attempt to generate social and external pressures on the delinquent borrowers.

[3] The NNPA should be determined not only on the basis of information provided by the recovery official but also the confirmation from the delinquent borrowers.

[4] In order to minimize and control the GNPA, the managements of these UCBs are required to initiate appropriate measures soon after the end of the previous financial year on the lines suggested by the auditors.

[5] The cost of funds could be brought down by determining the deposit-structure plan whereby the long -term deposits could be given high priority as compared to short-term deposits.

11. Summary

The most of the adversaries denounced the UCBs for the fast erosion of equity and profitability. They condemned the management of these banks for being dormant and disinterested in making the banks potential and proficient. This myth is exploded by this study which strived to critically examine the factors involved in the operational efficiency of five known UCBs working effectively in the city of Nagpur since last more than two decades. In the sample not merely most prominent but some commonly popular UCBs are incorporated for the purpose of the study.

Three major tools namely (i) The gap between the GNPA and NNPA, (ii) Financial pro efficiency ratio and (iii) NNPA - CRAR linkage were applied to carry out the objective of the research. The results of the study clearly reveal that the gap is not is normal and the capacity to recover the will be possible near future. Further the ratio of apparent rate of return to cost of fund has been satisfactory to mean any future eventuality. This apart, there has been a matter of great consolation that the correlation between the CRAR and the NNPA continue to remain positive. To conclude, the UCBs have been operating effectively if not efficiency as expected by the customers yet they have been completely aware of the environment and market which make them inevitable to adopt penetrative banking operations.

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Innovative Practices To Be Adopted Through Agriculture In The Packaging Industry By Msme Enterprises As Startup Organisations

Dr. Bhavesh Chandrakant Bhuptani
M.Com; LL.B.; M.PhiL; Ph.D.Assistant Professor in Commerce at Vmv Commerce, Jmt Arts & Jjp Science College, Wardhmana Nagar, Nagpur

Abstract:

Business and Agriculture are considered and treated differently in India. Now, it is high time to intersect both sectors to paint in a single color of Commerce and Economics. Earlier attempts were made by the Government to professionalize the agriculture sector, but in the light of the latest economic policies and taxation system, the MSMEs can play a better role to boost agro-based industries. Here an attempt is made in this paper by considering the peculiar importance of MSMEs to provide a lifeline to agricultural produce and rural products by converging the same into industrial-use products and consumer-based products. and accordingly, the conclusion is made at the end.

Definition in the context of Manufacturing Industries:

Micro-Enterprise:

A micro-enterprises is one where the investment in plant and machinery (their original cost excluding land, building and items specified by the Ministry of Small Scale Industries in its notification No. S.O. 1722(E) dated October 5, 2006) does not exceed Rs.25 lakh.

Small enterprise:

A small enterprise is one where the investment in plant and machinery (see above) is more than Rs.25 lakh but does not exceed Rs.5 crore.

Medium enterprise:

A medium enterprise is one where the investment in plant and machinery (see above) is more than Rs.5 crore but does not exceed Rs.10 crore.

Definitions in the context of Service Industries:

Micro-Enterprise:

Investment in equipment does not exceed Rs.10 lakh

Small Enterprise:

Investment in equipment is more than Rs.10 lakh but does not exceed Rs.2 crore

Medium enterprise:

Investment in equipment is more than Rs.2 crore but does not exceed Rs.5 crore.

Micro, Small & Medium Enterprises - The Engine of inclusive growth & development

Worldwide, the micro small and medium enterprises (MSMEs) have been accepted as the engine of economic growth and for promoting equitable development. The major advantage of the sector is its employment potential at low capital cost. The labor intensity of the MSME sector is much higher than that of the large enterprises.

COIR INDUSTRIES IN INDIA

Coconut is produced in about 91 countries of the world. India produces 12685 million nuts and occupies third place after Indonesia and the Philippines. The Indian share in the world's coconut production is about 16.28% and 17.07% in the area harvested. Annual production is about 216651 million nuts with an average of 10122 nuts per hectare. The high-producing state is Kerala in terms of area, followed by Tamil Nadu, Karnataka, Andhra Pradesh and Odisha. Coconut Husk Utilization and Market Potentials Currently 36310.44 lakh husks are utilized for generating fibers. The market value of husks consumed is between Rs 259.36 crore to Rs 315.12 crore. It is estimated 127824.62 lakh husks can be used for fiber generation and the estimated market value will be Rs 913.03 crore to Rs 1109.34 crore per annum. If the government succeeds to tap the husks, it has the potential to generate additional revenue of Rs 653.67 to Rs 794.22 crores per annum. Coir Fiber and Coir Yarn Consumption and Market Potentials 539815-ton fibers are being consumed in India. The market value of the consumed fibers is Rs 890.69 to Rs 1199.16 crore. The utilization of coir fiber stands at 28.41

%. It has the potential to generate revenue of Rs 3135.54 to Rs 4221.44 crore per annum. Centre for Market Research & Social Development. With regard to Coir yarn, the country produces 323900 MT of Coir Yarn in 2013-14 while the coir production was reported to be 321701MT in the year 2012-13 and 318900 MT in the year 2010-11. The major coir yarn-producing states are Tamilnadu (131447 MT), followed by Kerala (85317MT), Andhra Pradesh (37416 MT), Karnataka (32541MT), Odisha (1706 MT), and others (35473MT). Profile of the Coconut Farmers When the study tried to ascertain the profile of the farmers, the study reveals out of the total farmers engaged in coconut production, 32.5% of farmers cultivate paddy, 12.5% paddy and pulses (12.5%), Mango (8.8%), fishing (7.5%), 6.5% (business or shop) and other activities (6.9%). As indicated, 25 percent of farmers treat coconut production as main livelihood resource. On ownership of land, 95.6% of farmers cultivate coconut on their own land, while 4.4% of farmers cultivate on other's land. This indicates coconut is being produced primarily on its own land. The survey findings also indicate only 4.4 percent of farmers (mainly in Tamilnadu and Maharashtra) are engaged in coconut husk trade while 95.6 percent are limited to production of coconut and not engaged in husk trade. This indicates, the coconut farmers across the country have not shown interest so far to engage in coconut husk / coir industry in India Benefits received by the Coconut Farmers The survey further intended to assess the benefits the coconut farmers received. The findings indicate only 1.9 percent farmers have benefited either from the agriculture or horticulture department while 98.1% of farmers did not get any benefit or help. When asked about the problems that they encounter, the farmers said low harvesting due to climate problems, low rate of coconuts, poor quality of coconuts, and insects are the major problems that they face. When it asked about their poor interest in the coconut husk trade or the reasons for poor husk business, the majority viewed the low cost of coconut husk as the key issue. Centre for Market Research & Social Development. The survey assessed the farmers are looking for government help and encouragement besides ensuring a good selling price. Therefore, financial help, free fertilizers, and collection of coconuts through cooperative societies are the major expectations of the farmers. In order to involve the younger generation, the farmers opined to create awareness about coconut and coir products, introduce new schemes, provide financial help, promote hybrid coconut cultivation, and provide training for coconut cultivation and activities relating to the coir industry. Status of Coir Industries in India as on 31st March 2015, there are 15235 industries/units registered with the Coir Board. The study reveals the industries/units are concentrated in two states i.e., Kerala and Tamilnadu. Out of the total 15235 units, 7 units are public sector units. The public sector units are found in Kerala (3 units), Karnataka (2), Odisha (1), and Tamilnadu (1). Although there is incremental growth in overall terms, spatial growth has happened in the country and efforts must be taken by the Coir Board to expand the industry in all coconut-producing states. Out of the total, Kerala represents 57.85 percent while Tamilnadu's share is 25.83 % of total industries. Three more states are coming up in the Coir business. They are Odisha (share 5.28% of total industries), Karnataka (4.52%), and Andhra Pradesh (5.04%). The number of coir industries in other coconut-producing states is very less looking at the potentials of the state. The study wanted to assess the trend in setting up of the coir industries. A comparison is made with the Coir Board data of 2009-10. The Annual Report of Coir Board shows the share of South India was 93.89 percent in 2009-10 and this has decreased marginally to 93.46 percent in 2014- 15. The share of Eastern states in 2009-10 was 5.07 percent, increased to 5.48 percent. Number of Coir Units in India (as per the State Government) The study also collected data from Coir Producing State Government (s) and the UT (s) during the course of the survey. The findings reflect there is a mismatch in numbers available with Coir Board and the state government(s) on number of industries. The Coir Board data (baring Tamilnadu) suggests there are 11385 functional units while the State government data suggests Centre for Market Research & Social Development vi 8751 industries - a gap of 2634 industries. The study observed the Coir Board should conduct an Industry Census to generate database of the functional industries. Sample Survey of Coir Industries/ Units: The findings A sample survey was conducted to ascertain the status of the coir industries in the country. A total of 171 Coir Industries (1.1 % of the total industries) were surveyed from 14 coir producing states. The study assumes that 1.1 % sample units are representative of the whole universe and thus considers the views generate through this sample universe represents the views of the whole industries. The findings of the industry / unit study are described below: Category of Industries 76.6% industries have small scale operation, followed by medium scale (18.1% industries) and large industries (5.3% industries). This means 94.7 % industries are MSME units. More number of large-scale industries is functional in Karnataka, Kerala, Tamil Nadu and Odisha. Ownership of Coir industries with regard to ownership, the study found 57.3% industries are owned by private organized sector, followed by private unorganized sector (15.8%), Co-operatives (3.5 %) and SHGs (1.8 %).

Jute Industries:

Jute is the second most important fiber crop in India, next to the cotton crop. Nowadays in the world market, Jute is in great demand because of the cheapness, softness, strength, length, luster, and uniformity of its fiber.

Utility

Jute is used for producing a huge variety of utility products like gunny bags, hessian, ropes, strings, carpets, rugs and clothes, tarpaulins, upholstery, and decoration pieces. In recent time jute fiber is also used to manufacture men's shirting materials and women's sarees, salwar-kameez materials, after making the softness process of the fiber. Linen fabrics are now a days introduced in the textile market of India

Technique of Cultivating and Treating of Jute:

Jute is commonly sown in February on lowlands and in March-May on uplands. The crop takes 8- 10 months to mature but different varieties take the altered time to mature. The harvesting period usually starts in July and last still the month of October.

The plants are cut to the ground and tied into bundles. Sheaves of jute stocks are then engrossed in flood water or ponds or stagnant water for about 2 to 3 weeks for retting. High temperature of water accelerates the process of retting. After retting is complete, the bark is peeled from the plant and fiber is removed.

After this, stripping, rinsing, washing, and cleaning is done and the fiber is dried in the sun and pressed into bales. All this process is to be done by human hand. availability of plenty of labor at low-cost rates is very much important. Coincidentally, this workforce is readily available because jute is cultivated in areas of high population density.

Production:

India agonized a great obstruction in the production of jute as a result of partition of the country in 1947 because about 75 percent of the jute-producing areas went to Bangladesh (East Pakistan at that time) Providentially, most of the jute mills remained in India. Energetic efforts were made to the growth of the production and area of jute, instantaneously after partition to nourish our ravenous jute mills in the wake of a short supply of raw jute.

After this interval, the area under jute cultivation varied between 0.8 million hectares and 0.9 million hectares. The overall increase in jute production, despite the jute zone remaining more or less the same, is principally due to the increase in yields.

The yield of jute almost doubled from 1,183 kg/hectare in 1960- 61 to 2,183 kg/hectare in 2003-04. This is a great achievement keeping in view the geographical limitations under which jute cultivation can be carried on.

Besides 0.5 million people are involved in raw jute and finished goods trading and ancillary activities. Currently India accounts for about 66 per cent of world jute production as compared to only 25 per cent produced by Bangladesh.

R&D work is carried by the farming experts during the last few years has not only resulted in increasing yield of the fiber but also in improvement of the fiber quality and shortening of cultivation period.

Distribution:

1. WestBengal, 2) Bihar, 3) Assam

Bengal is the acknowledged ruler of jute production in India accounting for over four-fifths of the production and nearly three-fourths of the area under jute. Here hot and humid climate and alluvial, loamy soil attached with cheap abundant labor provide the par excellence conditions for the growth of jute.

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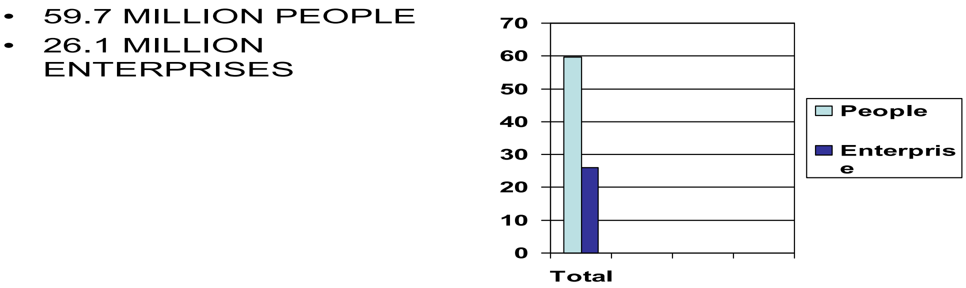
Trade:

India's production of jute always falls short of her requirements and it is imported to feed our jute mills. Bangladesh is the chief supplier of jute to India. There is the year to year oscillations in the quantity and value of jute imported by India.

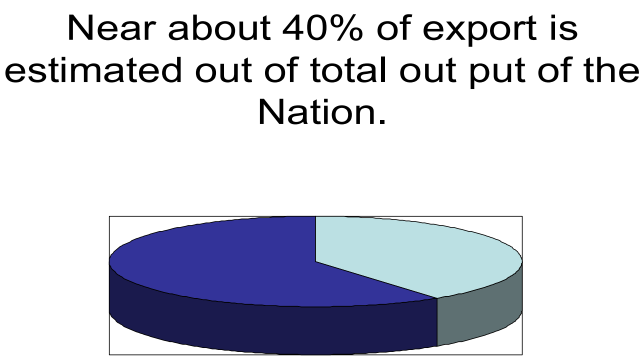
Being a natural fiber, jute is biodegradable and as such "environment friendly". The principal products can be reused and, as a result, many have a secondary value for other users. Despite such positive features, the world market for jute has remained depressed. The major cause of such a situation is the growth of alternatives like plastic.

Analysis/Findings and Conclusion:

- The major advantage of the SME sector is its employment potential at a low capital cost. According to available statistics **(4th Census of MSME Sector**), the sector employs an estimated 59.7 million people in 26.1 million enterprises; labor intensity in the SME sector is estimated to be nearly four times that of large enterprises.



- There are 6000 products ranging from traditional to high-tech items, which are being manufactured by SME in the country.
- These sectors provide the opportunities for both the employer and the employees apart from the people belong to agriculture. It is evident from the facts that near about 50% of SMEs are owned by the disadvantaged group in society.
- Near about 40% of export is estimated out of the total output of the Nation.



- The Government has set up Commissions and Boards to boost such enterprises and authorization is provided to the Industrial Development Corporations at the State and District level. Various Package Schemes of Incentives in this regard are introduced under which such enterprises are exempted from payment of various indirect taxes like VAT, Octroi and Stamp Duties in purchase of Fixed Assets etc.

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Conclusion:

From the above discussion and evaluation, it appears that even though there are certain drawbacks, limitations and disadvantages of the SME but these are compensated and gained with the significance, importance and advantages provided in the study which are mainly focusing as per following:

- Boosting the economy of the nation in a real sense which can be evident from the overall prosperity.
- The employment opportunities for both the entrepreneur and the laborers which quest the motivation force of each segment of the society.
- Having a substantial (about 40%) contribution in the total export of the nation. This helps the country to improve its balance of payment.
- There are about 6000 products ranging from traditional to ultra-modern items.
- From the above discussion and analysis, it appears that, these enterprises are giving a real competition to the large-scale production industries. Such healthy competition benefited the customers and society.
- These industries are contributing to the nation by way of direct and indirect taxes.
- The SME are help full to accelerant the Gross Domestic Production of the Nation.
- The SME are assisting the Government to discharge the responsibility of the Government and in response to this the Government also providing the facilities to such enterprises by way of various schemes in this regard.
- Though, these sectors have direct competition with large enterprises, and even though these SMEs are having their limitations, we know that slow and steady wins the race.

Hence, in the present scenario, there is much scope for entrepreneurs in India where Small and Medium Enterprises are more beneficial to the Society, Region, State, or for the Country to cop-up the adverse effect of the worldwide recession.

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Digitalization Of India's States For Digitalized Services

Dr. CH. Kishor Kumar
Assistant Professor of Commerce Vivekananda Government Degree College
Vidyanagar, Hyderabad-500044

Introduction

In 1970, American economist Milton Friedman wrote the epochal essay, 'The social responsibility of business is to increase its profits.' From there emerged phrases like `greed is good', and that defined the world economy in many ways over the following decades. That theory now, as Rostow Ravanan, chair-person of Nasscom Foundation and co-founder of Mindtree, said at our webinar last week, lies in tatters. Customers and employees, he said, today want to deal with organisations who have a purpose beyond just making money.

Towards Purpose

Harish Krishnan, MD & chief policy officer at Cisco India and Saarc, noted a recent study by consultancy firm Edelman that found that 70% of employees want their job to bring societal impact, and if it does not do that, it could be a deal breaker when considering a job. Organisations are responding to this sentiment. Many today have a larger mission or purpose. For Cisco, Krishnan said, that purpose is to power an inclusive future for all. And he said it's not just a corporate social responsibility (CSR) purpose, but one that's built into the DNA of the company. "Our products and services, they are all about connecting people and things. When you connect the unconnected, magic happens. 350 million rural people are connected today, and now you have amazing government programmes like direct benefit transfer that have plugged a lot of leakages, and are promoting inclusive growth," he said.

Technology is a crucial element in ensuring inclusivity and sustainability, given that it makes it easy to scale and replicate projects. Chintan Vaishnav, mission director at Atal Innovation Mission, the government's flagship initiative to create and promote a culture of innovation and entrepreneurship across the country, said that in several areas, digital interventions will transform our ability to deliver services. "This is true for healthcare, for agriculture, energy - anywhere that information can transform behaviour," he said. Vaishnav provides the example of watches that today tell you about your health. "The measurements they talk about are biophysical activities. But you have a digital view of that biophysical activity, and now you know, I walked only 4,000 steps today. And that changes my behaviour. More of that will happen with more sensing, more network, cheaper information exchange," he said, noting that these are areas many startups in India are working on.

Creating capacity

The purpose-driven approach, combined with the government's mandate to certain categories of companies to spend 2% of their net profit on CSR activities, has today created substantial capacity to give. But often, non-profits involved in social activities do not have enough capacity to use the resources. Ravanan said one of Nasscom Foundation's major work involves giving non-profits technology and mentorship to create capacity. It also helps Nasscom's member companies to connect to the right causes. It looks at how technology can be used for strategic mission driven programmes, such as in healthcare, using the global experience of the member companies. And it has a major skill development programme for disadvantaged youth, so that, as Ravanan said, "India's demographic dividend does not turn into a demographic noose."

Krishnan said government partnerships are often crucial to the success of CSR programmes. "India is a graveyard of successful pilots. With government partnerships, if the pilot succeeds, then they will take it to the next level," he said.

Review of Literature

Digital India: A Study of New-Age e-Entrepreneurship in India (Arjuna Kumar Sahu1, 2015) Arjuna Kumar explore Digital India and other initiative like National Digital Literacy Mission

(NDLM) penetration of mobile phone and broadband has raised in significant number and pattern of users has changed.

New Urban Utopias of Postcolonial India: 'Entrepreneurial urbanization' in Dholera smart city, Gujarat (Datta, 2015)

Datta has explored in depth critical analysis on Dholera smart city to suggested how state attempt to attract global capital and enhance economic growth through construction of new town ships. Developing Smart Cities using Internet of Things.

An Empirical Study (Sarin, 2016) Sarin explained Digital India program, which aims at setting up e- infrastructure in the nation will enable faster establishment of the IoT industry. Technological Innovations in Indian Banking Sector.

A Trend Analysis (Sarkar, 2016) Sarkar analysis IT & Innovation in banking sector has made it more competitive and delivering better customer services. It has transform banking from cash & paper based to cashless & paperless.

Information Centric Services in Smart Cities: (G.Piro, 2014) G. Piro focus on advance ICT technology support services (i.e. e-government and public administration, intelligent transportation system, public safety social, health care, education, building and urban planning, environment and energy and water management application in Smart cities by upcoming wireless technologies.

Development of Smart Cities in India: Dream to reality (Suresh, 2016) Suresh explores strategies for planned urbanisation, guideline for smart city development and explain thoughts to transform urban India. Indian Banking Sector-Challenges and Opportunities: (Singh, 2016) Singh reviewed Indian banking sector and analysed the challenges and opportunities in it. Author put his views that Indian Government needs bigger banks to finance, its social projects, infrastructure funds like Digital India, Bullet Train etc.

Uniting Mobile Wallet in the Customer Journey: A stride towards digital India (Joshi, 2016) Joshi analyse the parameters (i.e. understanding and knowledge, legal aspect of mobile wallet) for the use of mobile wallet, Banks providing this service must focus to provide awareness about it More than 75%(more than 100 core) of population using mobile phone and every one of mobile user must use mobile wallet. Mobile wallet service is important tool of Digital India.

Reviewing Digitization in Health Care Services in India: (Joshi, 2016) Joshi an attempt to understand conceptual understanding and overview with the present trend in digital health care in India and world. This study also address issues and challenges in digitization of health care services in India.

A Study on Diffusion of Digital Locker Technology in Vadodara District: (Singh, 2016) Singh focused on the conceptual understanding of digital locker. The suggested an awareness campaign in this country about digital locked is required & digital locker is important part of Digital India.

Digital India: Green Tab knowledge café (Bharat Bhagtani, 2016) Bharat analysis the feasibility of business model of e-library through primary research and benefits of it. Author expects it will reach its breakeven point in two years.

E-Governance-Reforming Government through Technology: (Raghavendra Kulkarni, 2016) Raghavendra Kulkarni explains and analysis the characterises, advantages and challenges in the implementation of E-Governance the two main advantages of E Governance are increased transparency and fast public service delivery.

E-Kranti: Electronic delivery of Services (Sarkar, 2016) Sarkar highlights features & services of E-Kranti. Demand of IT hardware will increase with the evaluation of this program a practical approach based on past experience for Ne GP should be implemented for the E governance.

VLDB Prerequisite for the Success of Digital India (Deloitte, 2016): Deloitte share insight into Indian scale data problems & how technology can be utensil in solving those.

Singapore Payment Roadmaps Enabling the Future of Payments 2020 and Beyond: (KPMG, 2016) KPMG explores the appraisal of the payment ecosystem forms an important component to support Singapore achieve the smart nation vision & uphold its place as the financial heart of Asia.

E-Governance and Digital India Empowering Indian Citizens through Technology: (Deloitte, ASSOCHAM, 2015) Deloitte offers a complete assessment of the Digital India initiative finds gaps and challenges and focus for closing the gaps have been discussed.

Why IT Firms are Shying Away from Govt. Projects: (BUREAU, 2016) BUREU highlights even though government spending is expected to grow at 10.5 percent which is same as domestic market growth IT companies showing lack of enthusiasm to government projects. The main reasons are payment issues and litigation. The companies facing challenges because it is observed change in requirement during implementation of a project, but contact and the system don't accommodate such things and it becomes a problem.

Digital India is Achievable but it has its Setoff Challenges: (Aruna Sundararajan, 2016) Aruna Sundararajan explained on the achievements and concerns around digital India.

Making Digital India a Reality: (Chowdhary, 2016) Sudhir Chowdhary wrote about the views of Debjani Ghosh vice president, sales & marketing group & MD, Intel South about digital India.

Taking IT Skills to the Masses: (Ahaskar, 2016) Abhijit Ahaskar highlights DISHA, government initiative to impart IT education to more than 50 lakh individuals by 2018.

Digitisation will Change Economic Growth Model: Nilekani (The Hindu, 2016) Bureau of the Hindu Business Line explains the view of Mr. Nilekani's that integration Aadhar, Jan Dhan Yojana and smart phone, among other things are "tipping point' of changing the way the economy grows and share other advantage of digitisation.

Objectives of the Paper

The aim of the paper is to present the degree of Digitalization of Indian States. Further, the paper is also guided by an other objective highlighting the Top 10 initiatives under 'Digital India Week' taken by the Indian Government.

DIGITALIZATION OF SERVICES IN SELECTED STATES

ASSAM

✓ Citizens in two districts can apply online for documents like permanent residence certificate, certified copy of electoral roll, land mutation document, Birth/Death certificates, driving license,and vehicle registration.

✓ Digitization of ration card data has started.

✓ Electoral rolls and National Register of Citizens are digitized.

ANDHRA PRADESH & TELANGANA

✓ Government bills can be paid online.

✓ e-services available in all mandals but work in progress.

✓ Andhra State is digitizing

- land records,
- ownership and title deeds
- Government employees' salaries
- Women and child welfare
- sand mining

CHANDIGARH:

✓ VAT for businesses through e-registration,

✓ Local excise and taxation department forms online soon.

✓ E-stamps in place, physical stamp papers to go soon.

✓ Administration plans phased rollout of 60 public services under e District Mission Mode Project, 16 to go online soon.

CHHATTISGARH

✓ Began massive IT drive in 2005, among the first in India.

✓ E-delivery of citizen services assured under LokSeva (CitizenService) Guarantee Act.

✓ First state to notify e-governance rules. Urban bodies, urban development authorities, panchayats; rural development, social welfare, public welfare, education, health, police, etc. Ministries digitized.

GUJARAT

✓ ✓ Under e-Gram project all 33 Collector offices and 13,000 grampanchayats are connecte
✓ ✓ Gujarat leads chart of e-transactions.
✓ Under e-Transactions aggregations and Analysis Layer (e-Taal),
✓ A central tool that reflects IT usage by states.
✓ State Wide Attention on Grievances by Application of Technology (SWAGAT) allows citizens to connect directly with CM. Land records are digitized. All 1.17 crore ration cards are barcoded.

HARYANA

✓ Seven e-services were launched, including e-stamping in property registration,
✓ Aadhaar enrolment of children along with registration of birth,and digital life certificates.

HIMACHAL PRADESH

✓ Paperless e-vidhan initiative since August 2014, all papers inHouse are laid digitally.
✓ All MLAs and media persons follow proceedings electronically.
✓ All officials communicate with VidhanSabha Secretariat online.
✓ Nearly all citizen services are online under e-suvidha project.
✓ The High Court has digitized working; causes lists are online and on digital displays..

KARNATAKA

✓ Mobile One project launched in December 2014 to bundle over 600 government services
✓ Application and issuance of birth/death certificates, property registration, tax and bill payments for power, water etc.
✓ One seamless web location accessible over mobile phones.

JAMMU & KASHMIR

✓ Government set up an exclusive e-governance agency.
✓ Public services, including getting a date of birth certificate.
✓ Registration as a new voter.
✓ e-tendering for development projects and execution of employment related schemes, are online, but land records are not digitized.

MAHARASHTRA

✓ Signed an agreement with Microsoft in January to create a digital identity for citizens.
✓ Merging identities such as driving licenses and passports.
✓ AapleSarkar portal to register grievances against governmentdepartments.
August 1 deadline to start Government Receipt Accounting System (GRAS) for government receipts

ODISHA

✓ Land e-registration
✔College e-admissions
✓ Monitoring of mineral transportation from pit-head.
✓ Online applications for 7 basic certificates.
✓ Waybill generation in commercial tax department.
✓ Driving licenses, vehicle registration certificates, and creation and processing of intra-department files at the state secretariat have been digitized.

PUNJAB

✓ Department of Governance Reforms created in 2012 to work on e-governance.
✓ Power bills can be paid online at the PSPCL website.
✓ Corporations in bigger cities have started some online gateways.

UTTAR PRADESH

✓ Land records are online.
✓ E-registration for commercial and other taxes.
✓ Various welfare schemes are available.
✓ E-tendering is mandatory in the Public Works Department, Miningand Irrigation.
✓ Sugarcane department has been recognized for its e-governanceinitiative.
✓ All scholarships are online.

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✓ 26 key services are online.

WEST BENGAL

✓ PDS examine through end-to-end computerization.
✓ Ration cards' digitization has now touched 7.8 cr.
✓ Online issue of caste certificates in 55 subdivisions.
✓ 2.74 lakh ST certificates issued.
✓ MamataBanerjee'sKanyashreePrakalpa has working with hugesuccess.

15 DOMESTIC PROJECTS OF 'DIGITAL INDIA' CAMPAIGN

1. **Digital Locker System** aims to minimize the usage of physical documents and enable sharing of e-documents across agencies.
The sharing of the e-documents will be done through registeredrepositories thereby ensuring the authenticity of the documentsonline.
2. **MyGov.in** has been implemented as a platform for citizen engagement in governance, through a "Discuss", "Do" and "Disseminate" approach.
The **mobile app for MyGov** would bring these features to users on a mobile phone.
3. **Swachh Bharat Mission (SBM)** Mobile app would be used by people and Government organizations for achieving the goals of SwachhBharat Mission.
4. **eSign** framework would allow citizens to digitally sign a documentonline using Aadhaar authentication.
5. The Online Registration System (ORS) under the **e-Hospital application** has been introduced.
It provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.
6. **National Scholarships Portal** is said to be a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India.
7. DeitY has undertaken an initiative namely **Digitize India Platform (DIP)** for large scale digitization of records in the country that would facilitate efficient delivery of services to the citizens.
8. **Bharat Net,** a high speed digital highway to connect all 2.5 lakh Gram Panchayats of country. This would be the world's largest rural broadband connectivity project using optical fiber.
9. Policy initiatives have also been undertaken by Deity in the e-Governance domain.
✓ e-Kranti Framework
✓ Policy on Open Application Programming Interfaces (APIs), Adoption of Open Source Software, E-mail, and use of IT Resources Collaborative Application Development, for Government of India.
✓ Framework for Adoption of Open Source Software in e-Governance Systems.
✓ Opening the Source Code of Government Applications. Application Development & Re-Engineering Guidelines for Cloud Ready Applications.
10. BSNL has introduced **Next Generation Network (NGN),** to replace 30 year old exchanges, which is an IP based technology to manage all types of services like voice, data, multimedia/ video and other types of packet switched communication services.
11. BSNL has undertaken large scale deployment of **Wi-Fi hotspots** throughout the country. The user can latch on the BSNL Wi-Fi network through their mobile devices.
12. BPO Policy has been approved to create **BPO centres** in differentNorth Eastern states and also in smaller/mofussil towns of otherstates.
13. Electronics Development Fund (EDF) Policy aims to promote Innovation, R&D, and Product Development and to create a resource pool of IP within the country to create a **self-sustaining eco-system of Venture Funds**
14. National Centre for Flexible Electronics (NCFlexE) is an initiative of Government of India to promote research and innovation in the emerging area of Flexible Electronics.
15. Centre of Excellence on **Internet on Things (IoT)** is a joint initiativeof Department of Electronics & Information Technology (Deity),ERNET and NASSCOM.

Progress during Digital India Week for DB

✓ About 170 events were organized at the state headquarters.

- ✓ More than 250 services were launched in areas of
- ✓ Health Information
- ✓ Utility Services Smart Public Distribution system (PDS) card
- ✓ Land Record Services
- ✓ Mobile App For Civic Amenities
- ✓ Services For Farmers
- ✓ Social Welfare And Pension Services
- ✓ Electoral Services
- ✓ Online Court Services Police Services
- ✓ And Employment Exchange Services
- ✓ Reports have been received from 438 districts wherein in 1,238 events, more than 136,000 lakh government officials and citizens have been informed on Digital India Programme and its services.
- ✓ Events were organized,
  - o More than 57,000 common service centres (CSC), wherein more than 3.42 lakh people (rural citizens, youth, e-Service users) participated.
  - o More than 1,500 post offices across the country and more than 175,000 lakh citizens have been informed about Digital India ande-services.
- ✓ Modi's Digital Dialogue initiative on Twitter received 391 million impressions during period of three days (July 4-6)

Top 10 initiatives under 'Digital India Week' taken by the Indian Government

The ambitious **'Digital India'** project of Prime Minister NarendraModi total overlay of Rs 1 lakhcrore Vision to transform India into a digitally empowered society and knowledge economy, across the ICT infrastructure, electronics manufacturing, e-governance services,capacity building, and job creation. Many initiatives planned underDigital India Program have gone live. The Department of Electronics &IT has implemented the following initiatives.

1. Digital Locker:

The Government is expected to roll out a national depository that will hold the important certificates and identity proof records. Each private locker will store all the important documents of users, which are digitally verified by the government. Now you can facilitate to verify through link of digital folder copies while needed.

2. Digital Life Certificates:

The JeevanPramaan' schemes for retired government employees. They produce digitally Aadhar number and biometric details of their existence to authorities for continuity of pension every year. It will be uploaded to a central database on real-time basis, ultimately enabling the pension disbursing agency to access a digital life certificate.

3. Digital Boost to MGNREGA: Now the rural job scheme MNREGA will through mobile monitoring system. An implementation agency with live data from the worksites is now in online and real-time updating of data base.

4. Twitter Samvad:

It will enable the citizens to informative about new government initiatives and actions and service through tweets and SMS.

5. Madad (Help):

The portal 'Madad' will enable Indian citizens living abroad to file consular grievances online to address the complaints promptly. Its portal remains of any National.

6. Cyclone Warning System: To create an SMS-based weather information and disaster alert system will be to officials involved in Administration, District Magistrates/Collectors besides fisherman, farmers, and general public.

7. Online Facility for File Single Return:

An online facility for firms/companies to file a common or single unified return on its portal to comply with as many as eight labor laws in one to proceed.

8. Online facility to Issue PAN Card in 48 hours:

PAN card will be issued within 48 hours of applying through online.

9. eMoney:

Provide electronic money order service through Department of Posts (DOP) by December. This service will enable send money next day to the doorstep in secure and fast ways to the people. One time maximums of Rs 5,000 through e-money order.

10. PRAGATI:

It aims to monitoring and reviewing programs and projects of both Central and State Government initiatives and also addressing common man's grievances.

Conclusions

1. In Make in India large land clusters have been allocated for the manufacturing of electronica and IT hardware good in state like Andhra Pradesh, Tamil Nadu etc. If Indian company's carte the domestic market demand, then also the India economy will reach on top position Last but not the least Digital India will have a massive impact on the Make in India programme for it hardware and electronics goods because it will create right ecosystem for its demand.

2. Digital India as one of the USP of Modi government which has attracted much of the political discussion in the country has its economic, environmental and social impact on the economy. In the context of economic impact, India is one of the world's largest emerging markets with immense opportunities. According to World Bank Report, in developing countries 10 per cent increase in mobile increases the GDP per capita by 0.81 per cent, and 10 per cent increase in internet penetration increases GDP per capita by 1.3 per cent. India being the second largest telecom market has a large population who are using broadband services. So, there is immense opportunity for telecom industry as just 45 per cent of population in rural areas uses the services of teleindustry, where 65 per cent of the country's population lives.

3. In case of environmental impact, technological changes also bring about the environmental changes. Digital India has implemented Cloud Computing Technology which will reduce carbon emissions. It is said that by improving flexibility of the technology, energy consumption can be decrease to 139.8 tettrawatt hour by 2020 which was 201.8 tettrawatt hour in 2010.

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Role Of Digital Payment System In The Development Of Small And Medium Enterprises

Meenakshi Choudhary
Assistant professor (VSY) SK Govt. Girls College, Sikar (Raj.)
Dr. Ashok Agarwal
(Professor) Department of ABSTUniversity of Rajasthan, Jaipur (Raj.)

ABSTRACT

Digital payment systems can link entrepreneurs to banks, workers, suppliers, and new markets. In a world of strong digital technology development, digital accounting is deemed vital for organisations to thrive. To that end, the success of digital payment implementation might indicate how entrepreneurs engage in digital accounting as a business tool. For this study the data is collected from 200 respondents and analysed using one sample t test with SPSS software. The findings of a survey in present research of small and medium-sized company owners revealed that small businesses are willing to embrace digital payment methods if given appropriate infrastructure and training. Entrepreneurs must be educated on the pros and cons of digital accounting.
Keywords: Digital Payments, SME, Digital Accounting, entrepreneurs.

INTRODUCTION

To reap the advantages of these trends or just stay up with competition, managers and leaders must implement large-scale changes. With digital payment systems, entrepreneurs may pay for products and services online, rather than with cash or cheques. These solutions may save travel time and costs for company registration and licencing payments. Digital payment systems are a boon for businesses, especially in developing markets. Digital payments can speed up company registration and licence and permit fees. Digital platforms may encourage e-commerce. Supply-chain management and client-vendor relationships may benefit. Electronic wage payments provide employees a bank account and access to financial services like loans. Entrepreneurs can build credit and obtain working and investment cash. Small firms in particular face a lack of official credit. Larger companies may benefit from digital applications like electronic tax and social benefit filing. It may improve savings and lending opportunities.

To promote digital payments, the Indian government has worked hard in rural regions. The Covid-19 outbreak accelerated monetary digitalization. It's good news for India's digital financial sector. It is getting easier and faster to make electronic payments. To date, many businesses are still unaware of electronic payments.

It may improve profitability by reducing operating costs and streamlining trade contracts, delivery records, and receivables management. Making and receiving digital payments may improve relationships with consumers, suppliers, and banks. To manage inventory and save money, digital records may be useful. To manage inventory, small company owners may track sales by product and day of the week. Digital payments cut trade credit days and working capital costs (by reducing accumulated interest on supplier loans). Document-related fraud is minimised by creating a readily traceable electronic trail. Cash on the premises is less likely to be stolen when paid digitally. Digital payments may be vital for female entrepreneurs. Traveling to distant suppliers or banks might be difficult for women due to distances, cultural norms, or To address these restrictions, digital payments may make money and markets more accessible.

Digital payments may enhance government programmes that aid small businesses by transferring cash quickly. This improves financial transparency and reduces "leakages," or small-scale money theft by middlemen. Electronic pay transfers also bring many previously unbanked individuals with stable employment and regular income into the official financial system. This encourages youngsters to make numerous formal money transactions, increasing their financial literacy.

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Literature Review

Payment is defined as the exchange of money, goods, or services between two people (Fonté, 2013). Payments made or facilitated utilising mobile devices, with or without mobile communications networks, are referred to as digital payments. The electronic development, representation, and transmission of financial data is referred to as digital accounting. Finance has been transformed by computers and accounting software. Accounting technology has increased accountants' ability to review and report data more quickly, efficiently, and effectively (Troshani et al., 2019). Finally, strategic decision effectiveness assesses how effectively a choice meets expected objectives or adjusts to rapid changes (Cao et al., 2019). Digital transformation is defined as the use of digital technology to build or change firm processes, culture, and customer experiences to meet changing business and market demands. Reimagining how a firm uses technology, people, and processes to generate new business models and revenue streams is what digital transformation entails (Peter et al., 2020).

Accounting information usefulness is defined as the ability to obtain and synthesise data that validates and verifies company economic choices (Ouda&Klischewski, 2019). Peterson K Ozili (2018) explores the influence of digital banking on financial stability and inclusion. The convenience that digital banking provides to those with low and unpredictable incomes is often more significant to them than the higher cost of receiving such services through conventional regulated institutions. Haider (2018) investigated how new financial technologies might improve people's life. Because to digital technologies such as mobile phones, the internet, and biometric identification, online banking, mobile banking, and digital credit for the unbanked are now feasible. The affordability and ease of digital financial services allow low-income and destitute people in developing countries to save, borrow, and invest.

Acceptance of digital wallets as a payment system is influenced by perceived ease of use, expressiveness, and confidence (Ritter & Pedersen,2020). These characteristics serve as enablers for the adoption of digital payment systems. Digital wallet payments provide more flexible payment adds and speedier exchanges (Khin& Ho, 2019). Shin and Ziderman (2009) investigated client acceptance of mobile payments. It used the UTAUT paradigm as a construct, with security, trust, social influence, and self-efficacy as components. The model verified the role of perceived security and trust in affecting users' attitudes and intentions.

A digital accounting system will make cash flow and balance sheet data conveniently accessible (Berman, 2012). One of the primary reasons why organisations and corporations pursue automation and digitalization nowadays is to save money by lowering service costs. Using digital data is less expensive than using traditional techniques. It saves time and enables businesses to concentrate on other elements of their operations (Shan, 2021). Thus, digital accounting may give (a) convenience and greater productivity, (b) security and agility, (c) simpler invoicing and payment monitoring, (d) better integration and synchronisation, (e) quicker tax preparation, (f) easier bank reconciliation, and (h) real-time advice.

In today's digital economy, all accounting transactions are completed online. It may aid organisations in completing functional operations more quickly and properly, as well as evaluating and reporting data more efficiently and effectively (Shuraki,2021).

Methodology

Primary sources were used for conducting the survey from respondents obtained using convenient sampling method. The questions asked includes the data of demographical variables, close ended 5-point Likert scale (Strongly disagree to strongly agree). Business professional and entrepreneurs of small and medium firm has been selected for the study. For the purpose of current study, 200 respondents are selected from major cities of north India. The data were examined by using one sample t test via statistical software known as SPSS (version 21). The descriptive of demographic profiles of respondents are also shown in table 1 as under:

Table 1: Sample Demographics

Dimensions	Percent
Gender	
Male	66%
Female	34%
Age	
20-30	37%
31-40	43%
41-above	20%
Sector	
Information Technology	16%
Production	39%
Finance & Account	45%
Education	
Undergraduate or lower	32%
Post Graduate	68%
Experience	
0-5 years	35%
5-10 years	39%
>10 years	26%

Out of the total respondents, about 66 percent of respondents are male and 34 percent were female. It can be concluded that majority of respondent (43 Percent) are from 35-40 years of age. 37 percent of respondents are between age of 20-30 years of age and only 20 percent of customers are more than 41 years of age. A large proportion belongs to Masters' degree holders, and 39 percent of respondent are having a good experience on 5-10 years in the industry. Larger proportion of the survey pool was taken from business professionals belonging to Production and Finance. Hence it is clear that our sample constitute of a wider variety and range of diverse demographic profile of respondent.

Table1 : Scale items with descriptive

Scale Items	Variable Name	Mean	Std. Deviation
Improve inventory management and make more cost-effective purchasing selections.	Digital1	4.1250	.37427
Digital payments may boost an entrepreneur's profitability.	Digital2	4.1550	.36281
Digital payments provide women businesses more financial power.	Digital3	4.1250	.37427
Financial infrastructure, including access points such as mobile phones, is required.	Digital4	4.1200	.39545
Many entrepreneurs and workers lack financial	Digital5	4.1300	.36574

literacy.			
Gather data to improve inventory management.	Digital6	4.1400	.34786
Can reduce the number of days of extended trade credit and working capital expenditures.	Digital7	4.1350	.37076
Improve openness and fraud prevention by making record keeping easier.	Digital8	4.1550	.36281
Businesses that accept digital payments have less cash on hand.	Digital9	4.1350	.35695
Assist female entrepreneurs in starting their own businesses.	Digital10	4.0800	.32268
Increase the efficiency with which government programmes may be accessed.	Digital11	4.1550	.40222
Help small companies by depositing funds straight into their accounts.	Digital12	4.1000	.34728
Electronic salary transfers provide the extra advantage of reaching previously unbanked employees.	Digital13	4.1450	.38039
Digital payments may also improve an entrepreneur's access to formal financial services, such as financing.	Digital14	4.0300	.22214
E-filing of company and employee taxes lowers the cost of tax compliance.	Digital15	4.1500	.38502

Table 2: 't' test result-Excel

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Digital1	42.510	199	.000	1.12500	1.0728	1.1772
Digital2	45.021	199	.000	1.15500	1.1044	1.2056
Digital3	42.510	199	.000	1.12500	1.0728	1.1772
Digital4	40.053	199	.000	1.12000	1.0649	1.1751
Digital5	43.693	199	.000	1.13000	1.0790	1.1810
Digital6	46.347	199	.000	1.14000	1.0915	1.1885
Digital7	43.293	199	.000	1.13500	1.0833	1.1867
Digital8	45.021	199	.000	1.15500	1.1044	1.2056
Digital9	44.968	199	.000	1.13500	1.0852	1.1848
Digital10	47.334	199	.000	1.08000	1.0350	1.1250
Digital11	40.610	199	.000	1.15500	1.0989	1.2111
Digital12	44.795	199	.000	1.10000	1.0516	1.1484
Digital13	42.569	199	.000	1.14500	1.0920	1.1980
Digital14	65.573	199	.000	1.03000	.9990	1.0610
Digital15	42.240	199	.000	1.15000	1.0963	1.2037

Table 2 for 't' test result presented with the observed *t*-value ("t" column), the degrees of freedom ("df"), and the statistical significance (p-value) ("Sig. (2-tailed)") of the one-sample t-test. The P value was <0.05 which confirm that the mean is significantly different from hypothesized mean, hence from mean value analysis and the descriptive statistics, it can be concluded entrepreneurs and business professionals are having a positive perception towards using digital accounting and payment systems for business function automation, analysis and decision making.

Conclusion

The survey result found that digital accounting and payment systems lower firm running expenses and make trade data like receivables simpler to maintain. This has improved an entrepreneur's relationships with customers and suppliers. The use of digital payments may also improve an entrepreneur's access to formal financial services, such as Digital payments make financial transactions with consumers, suppliers, and the government easier, safer, and cheaper. Even Paying workers online is safer and more cost-effective for firms.

Digital payments instantly create a credit history, which may help a business get credit. In addition to empowering women entrepreneurs, digital payments help their whole family, particularly their children. E-filing of corporate and employee taxes and social benefits may cut compliance costs. Data analytics of digital transactions such as digital payments to suppliers and consumers, as well as electronic payments for utilities and rent may assist an entrepreneur build a credit score.

Paying for goods and services online is becoming more common. However, creating a physical network to distribute digital payments to all corners of the nation is difficult in low-income countries with little banking infrastructure. Digital payment systems need a solid financial infrastructure, including access points like mobile phones. In order to access digital services, many businesses and workers need documentation like ID cards or birth certificates. Lack of financial literacy and mathematical thinking hinders the usage of digital financial goods by entrepreneurs and workers.

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The Images of Nature in the poems of Ranjana Sharan

Dr. Chetna H. Pathak
Associate Professor,Dayanand Arya Kanya Mahavidyalaya,Jaripatka, Nagpur.
,chetnapathak65@gmail.com

ABSTRACT

The aim of this research paper is to spotlight the need of clear cut attention on eco-consciousness through Ranajana Sharan's poems which deals with the man's relationship with nature. The natural environment encloses all living and non-living things- the Earth, the interconnection of all the living species and the natural resources on which depends the human life. Can we imagine a world without nature, absolutely no – Human beings need nature to endure life. Her poems convey the message to the world that how important it is to maintain ecological balance.

Key words: Nature, human, life, ecological balance, environment.

Introduction: Dr. Ranjana Sharan is a well-known name in the contemporary Indian Poetry in English with International Recognition. She is an eminent poet, author and critic with a number of awards to her credit for her poetry and contribution to literature. She received a commendation from the former President of India A.P.J. Abdul Kalam for her poem 'Mother Nature'. Her poem has been included in the Syllabus, M.A. (English) Purnea University. Her poems short stories, articles and research papers have been widely published at National and International levels in print and online. She is one of the editors of Out Pretty Achieve. (OPA) She is a Ph. D. guide and retired as a professor of English, S. B. City College Nagpur.

This paper throws light on the vital role played by the contemporary writers through their poems. They try to analyze the current problems of the society and awake the people highlighting the future problems of eco-system.

English literature and Eco-criticism:

According to the wikipedia ecocriticism is the study of literature and ecology from an interdisciplinary point of view where literature scholars analyze the text that illustrate environmental concerns and examine the various ways in which literature treats the subject of nature. Literature deals with the global ecological crisis through culture and physical environment.

Ranjana Sharan in her poems has analyzed relation between nature and man in literature. It deals with the attitude of man towards nature. The recent method is to put higher emphasis on destruction of nature due to advanced technology. Hence it is necessary to analyze contemporary literary texts, which fetches new dimensions to the field of 'literature'. 'green studies', environmental literary criticism" and "ecopoet" is the new term in English literature.

William Rueckert is believed to have coined the term 'ecocriticism' in 1978, he defines it as 'the application of ecology and ecological concepts to the study of nature.

In the poem 'The Sun' Within and Without the poet uses the image from a different angle. She strongly lays stress on the importance of sunlight. The reader learns that without sunlight and heat life on this earth will be impossible

Without your heat and light
the earth would be a lifeless
lump of ice-coated rocks.

The rocks will be cold i.e. no erosion of land – no movement on the earth.

The sun is giving life to the brooks and rivers, the insects, birds and all the human beings on this earth. The beauty of the sun, captivates the poet's inner mind and provokes her to write the role played by Sunlight and its importance on earth. She excellently describes the subtle beauty of sun.

Without the unsubdued splendor
that manifests itself.
in myriads of miracle

the big beauteous ball-
The Sun-reaching on earth
with unseen strides
to protect us all!

Thus the poet is amazed and admires 'The sun and eventually salutes The sun the creative core.'

I stand in awe of the Sun
An incarnation of Agni
The lord of fire
existing at three levels
Fire on earth,
Lightening in atmosphere
Sun in the sky:
The radiance that pulsates
throughout the universe!

She admired and informed about the vital role played by the Sun.

An ecological poetry called 'Earthquake' wonderfully contrasts two opposing images of the earth. The poet begins by describing a calm world, but soon a destructive world is painted as a result of conflict and the usage of weaponry. The balance and beauty are broken. The elements have been figuratively explained. The poem begins with a lovely illustration of the earth sleeping calmly while dreaming sweetly about millions of species of flowers and animals, the blue ocean, the gorgeous mountains, and trees swaying in the wind. The entire environment is calm and happy.

The earth was asleep under the stars
lost in lovely dreams;
the moon travelled around her
in an elliptical orbit,
the biotic and the abiotic
weaved the fibres of her dreams
The warp and woof of her life.

The poem begins with interesting images of natural stuff.
The poem is filled with interesting images of Nature-

The roaring oceans jumping
out of their fascinating depths
constantly kissing the shorelines
and leaving saline trails
Beautiful, wild, mysterious
with their unbound might!

This demonstrates that tranquility rules in Nature in during the first half of the poem. There are some more examples here-

Breathtaking mountains
rising out of landscape
reaching high into the sky!
The ethereal glow of roses-
The phosphorescence of dew
tipping their petals!

The harmony between the animal kingdom and the forest that sustains us is excellent. The animal kingdom and the forest co-exist in perfect harmony for our needs. If people want to truly protect the environment, they must check and limit their tendency to cause ecological disturbances by destroying forests, killing animals and engaging in war.

The psithurism of trees in the breeze
swinging in the gusts of the night!
All of a sudden, there was a blast
chilling the great mother to the marrow:

War, weapon, blood, and destruction!
were shattered : the Earth winced aghast
at the sound and sight!
She began to quake
belching out smoke and fire:
Rainbow colours turned into
blood red and black!

The swaying of trees in the breeze during the night time gusts. Much more environmental destruction results from wars. They have put the environment and eco-systems under stress.

The effects of war on the environment can be seen specifically in World War I, World War II, the Vietnam War, and many other conflicts. The metaphorical word 'earthquake' has been used to illustrate the destructive effects of war on the planet. The earth was dozing off under the stars, dreaming peacefully and in perfect harmony. But the war and the explosion caused the earth to quake.

The poem 'Scars of the Blue Planet' the poet conveys the same message of world, peace and harmony; demonstrating the wisdom of the proverbial oriental proverb that says, "Live closer to nature and its eternal loss will protect you." The poet expresses his satisfaction at being able to observe nature's wonders by giving a detailed description of the blue globe, or earth, that lies underneath the sky.

Precious, pretty,
a beautiful blue
God's carefully
crafted creation
Oh, my very soul
is wedded to it!

The poet raises her eyes, scans the sky, and finds an almost magical description of the beauty of nature in the sky at dawn with an equally lovely image: The poet believes that because nature is a constant source of duty and the resources it provides sustain our love, they should be cherished and preserved.

I look up from the earth
and explore the sky:
A myriad of colours
mesmerize me
Crimson! Magenta! Sienna!
The sky at dawn
like bright red
flowers of pomegranate
welcoming the sun
out of its abode
across a brilliant
orange horizon!
Beauteous Nature
and the resources
sustaining our lives!

Since the beginning of time, the way the stars glitter in the night sky has captivated poets. In these lines, Ranjana Sharan perfectly encapsulates the beauty of stars.

Seguin silver stars,
Shiny blue dots
scattered in the sky-
It seems someone
has crumbled up
the large luminous pearl-
The moon into stars!

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But soon the poet realizes the sorrow in her heart as she thinks about human being eradicating Nature and causing harm to the ecological balance.

She expresses -

But soon my happiness
fizzles out like
tine drops of water on
arid and sweltering sand:
I think of men destroying
the land, the sea, the air,
wiping out flaura and fauna,
killing one another
with fervent hatred-
Genocide, destruction,
rivers of blood!

According to the poet when rats were introduced to Laysen Island in the Pacific Ocean during and after World War 2, they nearly wiped out many important plants. In addition, the production, testing, transport, and use of biological, chemical, and nuclear weapons is likely the single most damaging effect of war on the environment.

According to the poet, genocide and violence are the scars of Mother Earth that need to be discouraged. Therefore, nature must be respected, and restrictions on the use of natural resources and the environment should be put in place. For ecological equilibrium to be maintained, man and nature must coexist in harmony.

The following lines from the poet's most well-known poem, 'Mother Nature', reflect her stance on ecology and nature.

In the poem 'Mother Nature' the following lines depicts the view of the poet regarding Nature and ecology-

Mother Nature

Everywhere the magic of Mother Nature,
A benign lap to give solace to creature
Join hands in maintaining her balance
To foster harmony and man's progress.

Conclusion:

The poems of Ranjana Sharan catches the heart of every reader and brings awakening amongst the people. Her Nature images reflect her love for Nature and appeals the people to save environment as she fears the threat regarding the destruction of nature.

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Synthesis and characterization of hexagonal Ferrites $Sr_{0.81}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$.

***S.R. Choubey, [1]S. C. Gedam, [2]A. B. Borkar, * K.M.Bhad (Borawar)**

*Department of Physics VMV Comm. JMT Arts , JJP Sci. College, Wardhman Nagar Nagpur.

[1] Department of Physics, K. Z. S. Science College, Kalmeshwar, Nagpur, India

[2] Indian Institute of Chemical technology, Mumbai.

Email Id: Sureshkumar.choubey@gmail.com

Abstract:

The purpose of these studies is to manufacture strontium ferrites using a standard ceramic method and to investigateit's properties. As a result this process is used to create M-type hexagonal ferrites sample with the composition A^0. A composition (x=0.2) for a M-type single phase calcined powder was formed. The M-type hexagonal phase of the produce sample is confirmed by x-ray diffraction (XRD), the elemental composition of material is analysis by the energy dispersive analysis x-ray (EDAX), while the morphology and grain size of synthesized nano-particles are explained by scanning electron microscope (SEM) the magnetic properties such as retentivity,magnetization and coercivity are characterized by vibrating sample magnetometer (VSM). The coercivity (Hz) of all sample range between 456 Oe and 1846 Oe and the electrical resistivity. The hexagonalmagnetoplumbite (M) type structure has unit cell dimensions 'a' and 'b' that range from 5.80 A^0 to 22.12 A^0, according to XRD. The same picture of the sample generated showed in irregular from that was nearly vertically Oriental and resembled is semiconducting , with a energy band gap of 0.230 eV, according to electrical resistivity.

Introduction:

Since,the discovery of hexagonal ferrites in the 1950 s [1]. The magnetoplumbitetype is a hard ferromagnetic with the hexagonal structure that was discovered for the first time by Adelskold [2-3]. The general chemical formula of M-type hexagonal ferrites are represented as $MFe_{12}O_{19}$ [4].The ferrites electrical/electronic and magnetic properties [5-6]. Allow it to be used to radio frequency and microwave application. Ferrites strong electrical resistivity, combined with their low magnetic losses, minimize less in microwave devices and their applicability in magnetic devices [7-8].Many researchers are now interested in ferrites material that function at higher frequencies because of their wide range of applications, including magnetic recorded data, electronic system, microwave and magneto-dielectric devices [9-10].The microwave absorber , radar expansion due to greater magnetization , and existence of the material in the hard ferrites family are all applications for M-type hexagonal ferrites [11].

Hexagonal ferrites M-type mostly Sr/Ba/La is widely used in electronic, including permanent magnet, recording media, and nomicrowave devices [12-13-14]. When hexaferrites are doped with different divalent trivalent metal ions, their characteristics enhance [15-16-17]. When compared to spinel and garnets , ferrites (NP_5) hexaferrites has a higher chemical stability, tunable anisotropy constant , and corrosion resistance [18-19]. Because of it'scrusible role in many applications, magnetic materials like M-type bariumhexaferrite. Ramain an appealing Material for researchers [20].

A combination of Sr-La is found to be effecting the electrical and magnetic properties of M-hexaferrites I'm comparison to other types of ferrites [21-22].Thus an attempt has been made to synthesis. Sr-La ferrites using the ceramic method,by sintering at a high temperature of 1150k to remove the maximum amount of impurities,alpha-Fe_2O_3 ;magnetite Fe_3aO_4 peaks [23],so that the intensity of peaks become stronger and narrower, indicating a better structural quality of material.

Experimental details:

Synthesis:

Standard ceramic method on solid-state reaction technique is the most widely used method for preparation of polycrystalline material from a mixture of solid starting material. The material of strontiumhexaferrites with chemical formula $Sr_{0.81}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$as carried out via standard

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ceramic method. The AR grade oxides SrO,BaO,Fe_2O_3 and La_2O_3 (merk grade) were used as starting precursors for the synthesis of present series of compound. First of all, raw material weighed accurately in an electronic balance having accuracyupto three chemicals. To obtain an ultra-fine uniform powder of sample the stoichiometric proportion of weight oxide was thoroughly combined by grinding for 3-days in an agate mortor with the use of acetone. To obtain a moisture free , homogeneous, calcined sample,the powder is pre-sintered at 150^0C for half an hour. The calcined powder was pressed into a pallet machine to produce 1.5 kg/cm^3pallets, which were then sintered at 1150^0C in an air atmosphere for roughly 54 hours before being progressively cooled to room temperature at the rate of 150^0 C half an hour using a microprocessor controlled furnace. The sample was the ground in an agate mortor to obtain an ultra-fine powder. To eliminate contaminants,the systhesized sample powder was heated at 200^0C for 30 minutes.

Characterization:

In order to investigate different properties of ferrites.some specific techniques have been used . x-ray diffraction pattern of $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$hexagonal ferrites under investigation were obtained using x-raydiffractro-meter machine (bruker AXSDS Advance) in SAIF. STIC Kochi .SEM photographs of sample were characterized by SEM Machine in SAIF kochi University by JOEL model JMS -6390 LV – from SEM image of (formula). The vibrating sample magnetometer were characterized by VSM machine in IIT Guwahati University .

The intensity diffraction peaks of the sample have been found at (200) ,(114),(107) etc. Orientation as mentioned in fig(1) (XRD Spectrum). The sample highest intensity diffraction peaks was discovered at 2d=34.492 with (107) orientation. The lattice parameter of the sample is obtained to be a=6.00026 A^0 and c=21.0009 A^0 and the particle sized of the XRD was found 55.36 nm. The grain sized in the SEM image was found 758.4 nm. The vibrating sample magnetometer characterized bycoercivity, magnetization and retentivity. The coercivity (Hc_i) of the sample is 46.937 emu/g and the retentivity(Mr) of the sample is 26.176 emu/g.

Result &discussion:

The XRD pattern of (formula) powder under investigation were obtained using x-ray diffractro-meter machine. In SAIF STIC University Kochi.

The XRD Diffraction analysis confirms the formation single phase $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$for all precaution root ,it was found that the calcined temperature for sample are 1150^0 C /54 hours from the particle size measure by using scherer's formula show that the average particle size 55.36 nm for sample respectively.

The lattice constant a and c of hexagonal ferrites were calculation using eq (1)

$$\frac{1}{d^2}=\frac{4(h^2+k^2+hk)}{3a^2}+\frac{l^2}{c^2} \quad \ldots\ldots\ldots\ldots \quad (1)$$

Where h,k,l are Miller indices and d is the interplanner spacing, a and c are lattice parameter. The lattice parameter a and c obtained to be 6.00026 A^0 and 21.0009 A^0 respectively.

The particle size measurement were also carried out using XRD data and usingscherer'sequation (2)

D = Kλ/β. Cosθ ……………………….(2)

The average particle size was found to be about 55.36 nm, where β is the breadth of the observed diffraction on peak at half maximum intensity,K is the space function which take a value roughly 0.9 and λ is the wavelength (Cu Kα radiation equal to 1.54 ^{A}

In XRD graph 1st and 2nd prominant peak hkl planes are (107), (200) and find the value of a and c, this compare standard data.

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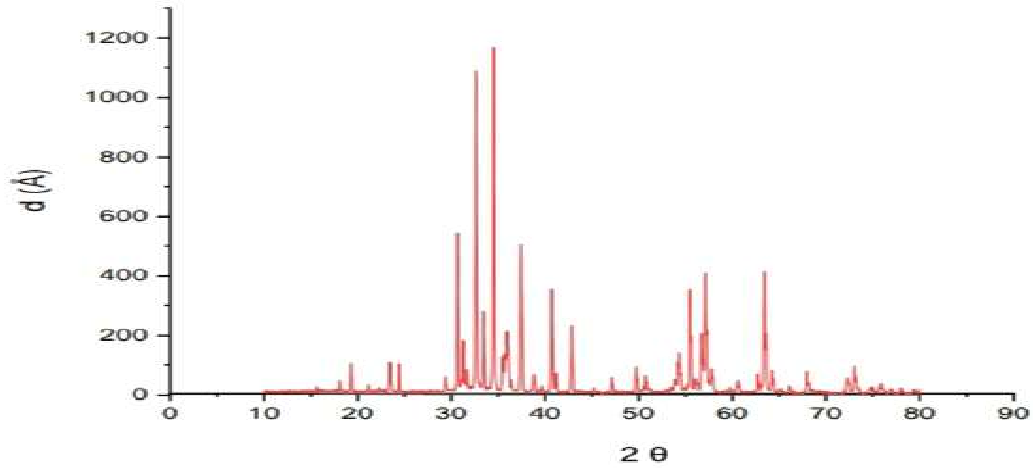


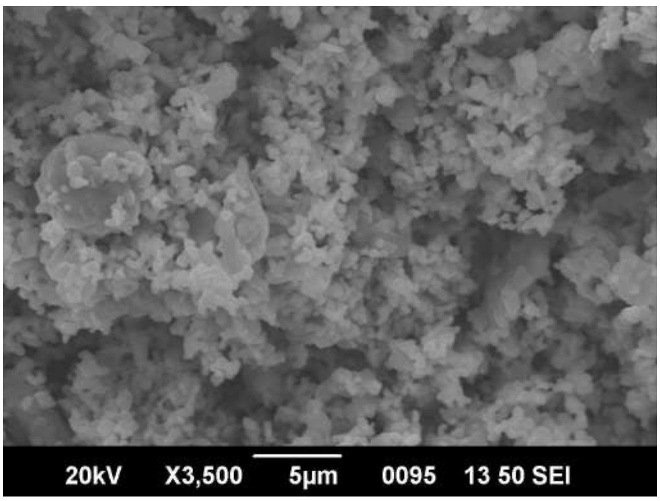
Fig.1. XRD graph of sample $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$

Sample	a(A^0)	C(A^0)	Volume	Particle size(nm)	c/a ratio
$Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$	6.002	21.0006	756.0288	55.36	3.5001

Calculation table for XRD of $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$

Scanning Electron Microscope (SEM):

SEM photograph of sample were characterized by SEM machine in SAIF Kochi University by JEOL Model JMS – 63901 LV. From SEM image of $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$, it is clear that the most of the particles appears irregular in shape. Some moderately agglomerated particle as well as seperated particles are present. Fig.2 shows that the representative SEM micrograph of fractured surface of La substituted sintered SrM. By comparing other composition of lanthanum the particle size is reduces the particle size.



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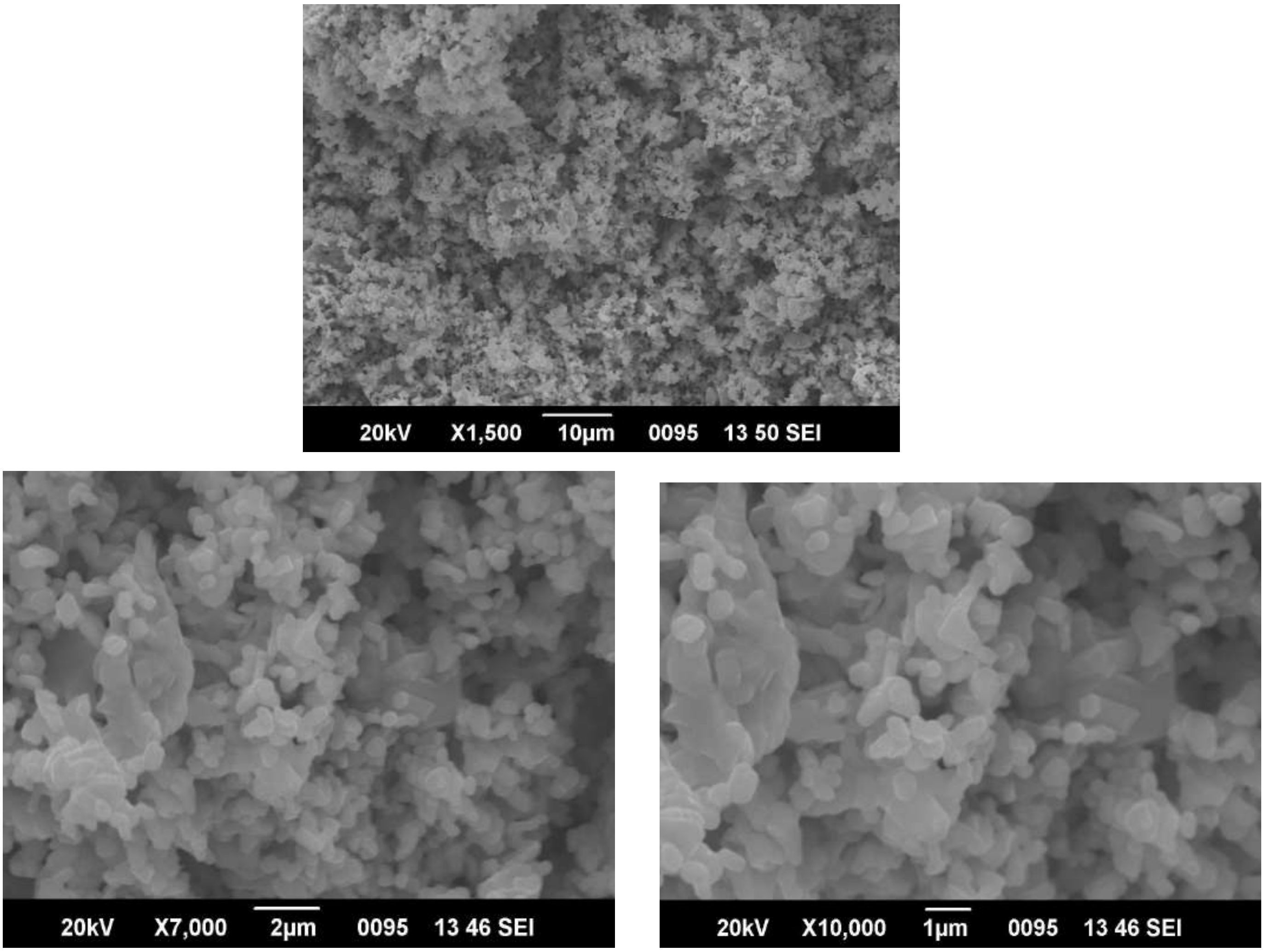

Fig.2. SEM images of sample $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$

Sample	Grain Size (nm)
$Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$	758.4

Energy Dispersive Analysis X-ray:

Energy Dispersive Analysis X-ray were contamination analysis by the EDAX machine in SAIF Kochi University by JEOL Model JMS-6390 LV from EDAX composition of $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$. It is clear that the elemental composition of material.

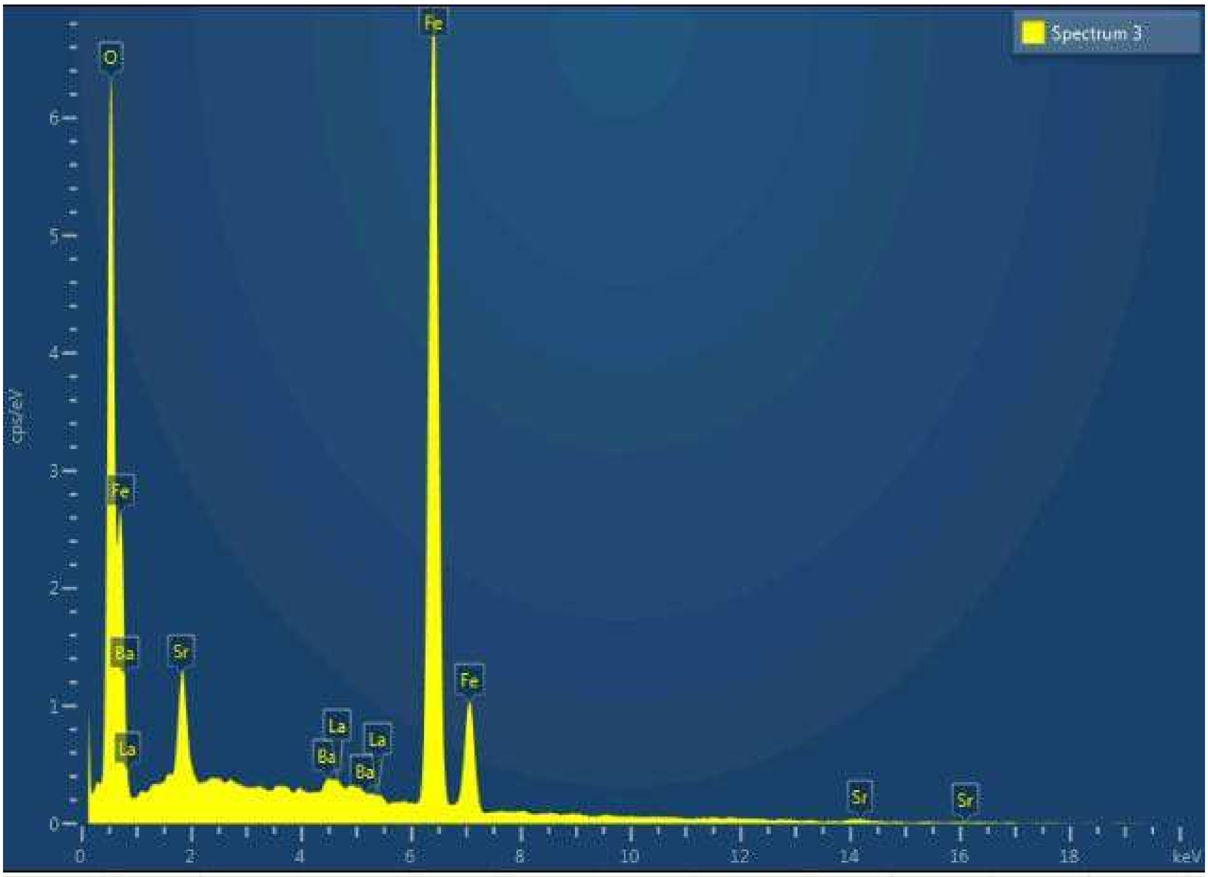

Fig.3. A graph of EDAX composition of $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$

Vibrating Sample Magnetometer (VSM):

Vibrating Sample Magnetometer were characterized by VSM machine in IIT Guwahati

Element	Line type	WT %	Atomic%
O	K series	28.22	59.04
Fe	K series	64.04%	38.38
Sr	L series	5.09	1.95
Ba	L series	1.32	0.32
La	L series	1.33	0.32

University. It is a versiletechniques for measuring magnetic moment of a sample when it is vibrated perpendicular to a uniform magnetizing field. In VSM measure retentivity (Mr), magnetization (Ms) andcoercivity (HCI) .

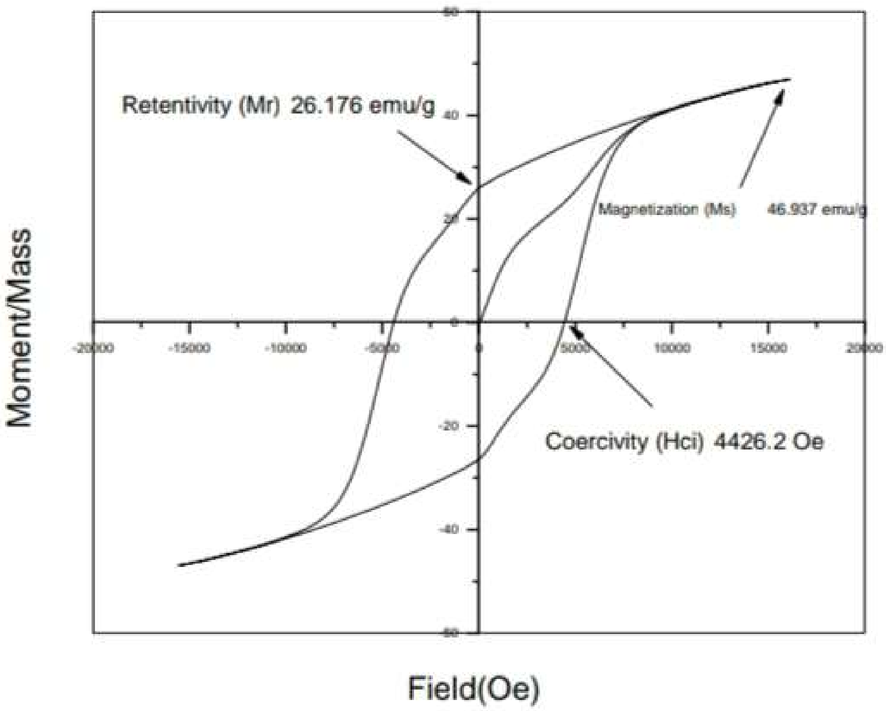

Fig.4. vibrating Sample Magnetometer of sample

Retentivity (Mr) = 26.176 emu/g
Magnetization (Ms) = 46.937 emu/g
Coercivity (HCI) = 4426. 2 Oe

Conclusion:

The ferrites $Sr_{0.8}Ba_{0.2}Fe_{11.7}La_{0.2}O_{19}$ with La substituted were synthesized by standard ceramic method. The X-ray diffraction results show that the monophase M-type hexaferrite is formed, and the sample's a and c values of the sample supports this confirmation. Samples were characterized by the X-ray diffraction (XRD), Scanning Electron Microscope (SEM), Energy Dispersive Analysis X-ray (EDAX) and Vibrating Sample Magnetometer (VSM). The substitution of La^{3+}ion for Fe^{3+} ion greatly improves the magnetic parameters.

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A review on $Ni_{0.25}Cu_{0.2}Zn_xFe_{2-x}O_4$ Ferrites Material; Synthesis and characterization

S. R. Choubey*, S. C. Gedam, A. K. Nandanwar*
*Department of Physics, V.M.V.College , Nagpur, 440033, India.
Department of Physics, K. Z. S. Science College, Kalmeshwar, Nagpur, India
Email Id: sureshkumar.choubey@gmail.com

Abstract:
Spinel ferrite is a class of magnetic materials which derives this name due to its similarity with the naturally occurring mineral. Also known by the name of 'cubic ferrites', these ferrites have been the center of $MgAl2O4$ attraction for material scientists ever since their discovery. Among these spinel ferrites, nickel ferrites have become one of the best options for usage in different applications such as medical treatment, electronic devices, electromagnetic wave absorption materials and water purification. The popularity of these ferrites is due to their favourable properties such as high permeability, high resistivity and high saturation magnetization.

The purpose of writing this review paper is to summarize the major researches in the field of nickel ferrites on one platform. The major research findings are tabulated and briefly summarized.

Keywords: Spinel Ferrites, XRD, Particle Size, X-ray Density.

Introduction

Ferrites belong to that category of ferrimagnetic materials in which metal cations and oxygen anions arrange themselves in the crystal lattice, in order to generate different geometric configurations [1, 2]. Ferrites are both electrically resistive as well as magnetically ferrimagnetic [3-5]. Yogoro Kato and Takeshi Takei, of Tokyo Institute of Technology, synthesized the ferrite compound for the first time in the year 1930 [6]. These materials are very stable and can be fabricated with a variety of properties. Their applications encompass an impressive range which includes millimeter wave integrated circuitry, permanent magnets, transformer cores, antenna rods, memory chips, transducers, activators, magnetic recorders, computer components, drug delivery systems, and microwave devices [7-10]. Due to such a wide scope of these materials, material science researchers have given special attention to improve the properties of the ferrites.

Doping of cobalt in pure nickel ferrite is regarded as a very useful doping option. Time to time, researchers tried to improve the properties of Ni-Co ferrites not only by varying the synthesis process, but also by further substitution. Among those substitution options, zinc is the most commonly employed dopant. Ni-Zn-Co ferrites, in the form of thin films, were prepared for the first time by Gleason et al. using pyrolytic hydrolysis of metal inorganic salts. Structural, compositional and magnetic properties of the ferrites were analyzed [11-15]. Then in 2007, Xie et al. reported the microwave absorbing properties of wax composites of ferrites $(Ni_{1-x-y}Co_xZn)Fe_2O_4$ in 0.5 - 14 GHz frequency range. The prepared composites were finally sintered at 1250˚C for 2 h. The weight ratio of ferrite/wax was kept constant 5:1 for all the samples. Lattice constant was observed to decrease (in 8.4-8.37 Å range) with increasing x and decreasing y content. Reflection loss values for single layer and double layer absorbers were simulated from the electromagnetic properties of the synthesized ferrites. It was shown that single layer absorbers were effective but at large thickness values (16.5 mm, 18 mm, 20 mm, 24 mm). Use of double layer absorbers not only shifted the RL peak to higher frequencies (around 8.5 GHz), but also resulted in increase in -20dB absorption bandwidth at comparatively smaller thicknesses (3 mm, 4 mm, 5 mm). $(Ni_{0.4}Co_{0.2}Zn_{0.38})Fe_2O_4$ ferrite composition was suggested to be the best single layer absorber with large absorption band (8.64-11.2 GHz) at matching thickness of 3.15 mm [16-20].

2. Experimental

The ferrite powder was synthesized through nitrate–citrate auto-combustion route[12-15]. Analytical grade nickel nitrate [$Ni(NO_3)_2$ $6H_2O$], zinc nitrate [$Zn(NO_3)_2$ $6H_2O$], copper nitrate [$Cu(NO_3)_2$ $3H_2O$], iron nitrate [$Fe(NO_3)_3$ $9H_2O$], citric acid [$C_6H_8O_7$ H_2O] used to prepare

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$Ni_{0.25}Cu_{0.2}Zn_xFe_{2-x}O_4$ ferrite with x = 0.00, 0.025, 0.05 and 0.075 compositions. Metal nitrates and citric acid solutions were prepared using deionized water. Metal nitrate solutions were standardized with respect to metal ion content through chemical analysis using ethylenediamine tetra-acetic acid (EDTA) com-plexometric titration. Nitrate and citric acid solutions were mixed in 1:1 M ratio of nitrate to citric acid. The pH of the solution was adjusted to 7 using ammonia solution. Then the solution was heated at 80°C to transform into gel. When ignited at any point of the gel, the dried gel burnt in a self-propagating combustion manner until all gels were completely burnt out to form a fluffy loose ash. The auto-ignition of gel was carried out in BOROSIL glass beaker upon a hot plate.The ash was lightly ground and calcined at 700°C for 2 h. The calcined ferrite powder was granulated using polyvinyl alcohol as a binder and was uniaxially pressed at a pressure of 275 MPa to form toroidal and pallet specimens. The specimens were sintered at 900°C for 4 h in air atmosphere [21-25].

3. Results and discussion

To identify the possible formation of second phase in the NiCuZn ferrite upon Sm substitution, an XRD analysis was done showsthe XRD patterns of sintered ferrites specimen withvarying Sm substitutions. The most intense peaks in all the specimens were found to mach well with cubic spinel ferrite (JCPDS card no. 08-0234). Samarium iron oxide, FeO_3 phase was detected in all Zn-substituted ferrite. The amount of $ZnFeO_3$, that is its' peak intensity increased with increasing Smconcen-tration. This apparently indicates that Sm did not form a solid solution with spinel ferrite or it has very small solid solubility. A small amount of unknown phase was found in un-substituted ferrite. The peak was tried to match with Cu and/or Cu–oxygen containing compounds. The matching suggested that the peak may be corresponding to some compound in between Cu_2O– Cu_4O_3. Many investigators reported that NiCuZn ferrite dissociates during sintering to precipitate Cu metal or its oxide [26-28]. The presence of Cu–oxygen containing phase may be due to surface oxidation of that precipitated Cu metal during sintering in air. It is interesting to note that the Cu containing compound was absent in all Sm-substituted specimen. This may be due to the solubility of precipitated Cu in $NiFeO_3$.

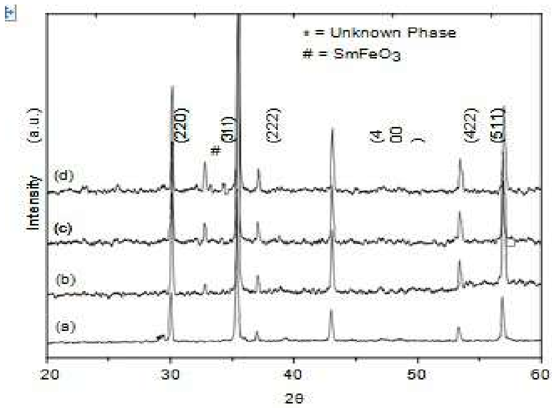

Fig. 1. XRD patterns of sintered $Ni_{0.25}Cu_{0.2}Zn_xFe_{2-x}O_4$ ferrites with different Zn-content: (a) x 0.00, (b) 0.025, (c) 0.05 and (d) 0.075.

Table 1

Bulk density, percent theoretical density, crystallite size, lattice parameter and grain size of sintered $Ni_{0.25}Cu_{0.2}Zn_xFe_{2-x}O_4$ ferrites with different (x) content

Composi tion	Bulk density (gm/cm	% Theoretic al density	Crystallite size (nm)	Lattice parameter (A)	Grain size (mm)
0.00	3.75	70.74	102	8.429	0.42
0.025	5.06	91.02	170	8.403	1.18
0.05	5.15	93.65	184	8.392	1.21

0.075	5.01	90.65	156	8.384	0.95

Lattice parameters and crystallite sizes of sintered ferrite specimens, evaluated by XRD analysis, are shown in Table 1 along with their bulk density, percent theoretical density and grain size. There was a minor decrease in lattice parameter, a_0 of CuZn ferrite with Ni substitution, which may be due to the compres-sive pressure exerted on the ferrite lattice by $NiFeO_3$. Crystallite size increased with Ni substitution due to improved densification and grain growth. The density of sintered specimen increased upon Ni substitution, indicating an improved densification with the substitution. A similar trend was reported by Costa et al. [17] for Ni-substituted Zn ferrite. Increased densification may be due to the evolution of excess Cu, and Zn in the composition as Sm is substituted for Fe. Ni further takes some Fe to form $NiFeO_3$. So the neat result of Ni substitution was to create non-stoichiometry in compositions. It is known that, non-stoichio-metric excess Ni, Cu and Zn are often used for low-temperature liquid-phase sintering of the ferrite [28-32]. For this reason the densification increased with Ni substitution.

Conclusion:

We must always hope to make an effort and ensure that inventions and discoveries in these areas are always used in the interest of the entire human race and to make the world a better place for you.Scientific knowledge teaches us to express our civic aspirations, our desire to connect with others and contribute to the world around us.

Ferrite is very important technological material having both electrical and magnetic properties. This paper represents some of the important developments in the study of ferrite.Co-precipitation method was used for the synthesis of nano ferrites. The prepared nanoferrites were used for various applications. XRD confirmed the formation of single phase spinel ferrite structure with size of the nano ferrites. Hysteresis loop indicates the soft nature of the prepared nanoferrites. The soft ferrites have tremendous applications in medical science.

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Studies on Solar Power conversion efficiency of $CdSe_{0.7}Te_{0.3}$/Polysulphide photoelectrochemical solar cell

L. P. Damodare, S. R. Choubey and S. C. Gedam
[1*]Department of Physics, Hislop College, Temple Road, Civil Lines, Nagpur 440001
[2]VMV Com. JMT Arts and JJP Science College, Wardhaman Nagar, Nagpur 440008
[3]K.Z.S. Science College, Kalmeshwar, District: Nagpur

Abstract: Thin films of $CdSe_{0.7}Te_{0.3}$ of thickness $\approx 500\ nm$ were coated on pre-cleaned glass plates in a vacuum of $\approx\ 5 \times 10^{-5}\ torr$ The semiconducting thin films of $CdSe_{0.7}Te_{0.3}$ used in junction with polysulphide, (aq) 1 M NaOH + 1 M Na_2S + 1 M S were formed to fabricate photoelectrochemical solar cells. The thin films of $CdSe_{0.7}Te_{0.3}$ were characterized by powder XRD pattern for structural determination, the thin films showed hexagonal pattern with $a_o \approx 4.234$ Å and $c_o \approx$ 7.341 Å, optical absorption studies for band gap determination yielding a direct band gap, $E_g \approx 1.52\ eV$. Under white light illumination of $CdSe_{0.7}Te_{0.3}$/polysulphide junction, the photoelectrochemical solar cell showed an Solar Power conversion efficiency of 1.4%. The results are discussed in detail in this paper.

1. Introduction

Chalcogenides of Cadmium, Selenium and Tellurium in a proper combination have shown to exhibit semiconducting nature [1-2]. Many workers have studied the combination of bulk $CdSe_{1-x}Te_x$ with *x* parameter varying from 0.1 to 0.9. The interesting part of the this chalcogenide semiconductor was that the optical band gap can be tailored to meet the visible spectrum for a possible application to Solar Cells. Many solid state solar cells have been prepared by using junctions of CdSe and CdTe but there has been less work in application to Semiconductor-Electrolyte junction Photoelectrochemical Solar Cells [3-4]. Alloy of Cd, Se and Te especially $CdSe_{0.7}Te_{0.3}$ has an optical band gap of $E_g \approx$ 1.52 eV which falls in the visible region of solar electromagnetic spectrum. The semiconducting $CdSe_{0.7}Te_{0.3}$ has amazing properties for preparing as a photoanode in the photoelectrochemical solar cell set up. The Solar Power conversion efficiency studies have been explored here in our work.

2. Experimental

Highly pure (99.999%) bulk Cd, Se and Te were taken in proper stoichiometry in a quartz ampoule which was sealed in a vacuum of $\approx\ 5 \times 10^{-5}\ torr$. The ampoule was heated in a muffle furnace which was initially heated to 250 C and then step wise heated to 550 ^oC and kept for 24 hours at 550 ^oC to form a homogenous mixture with constant shaking. The wire wound furnace was gradually cooled to room temperature. The bulk alloy was powdered in a pre-cleaned Agate and Mortar. The alloy powder was kept in a Tantalum boat inside the vacuum system with pre-cleaned glass plates in proper sample holders at a distance of 25 cm above the Tantalum boat. The entire system was evacuated to a pressure of $\approx\ 5 \times 10^{-5}\ torr$ using a turbo rotary pump and a diffusion pump. An A. C. current of 25 A was passed for 40 seconds for the sample to evaporate. A digital quartz crystal monitor system was kept near the sample holder to measure *in-situ* thickness of the deposited $CdSe_{0.7}Te_{0.3}$ thin film over precoated In_2O_3 glass plate for back contact. A double distilled de-ioinized $(\rho \approx 15\ G\Omega\mathrm{cm}$) water was used to prepare the redox electrolyte, (aq) solution consisting of 1 M NaOH + 1 M Na_2S + 1 M S. A counter electrode in the photoelectrochemmical solar cell was a highly conducting thin graphite.. A Perkin Elmer X-ray diffraction set up was used for scanning the sample with Cu-Kα ($\lambda \approx 1.542$ Å) X-ray radiation with a step size for $2\theta \approx 0.01^o$ varying from 5^o to 85^o. Shimadzu Spectrophotometer was used for studying the optical absorption in the UV-VIS-IR region from the wavelengths of 450 nm to 750 nm. Tungsten Halogen lamp (100 W) was used for white light illumination of the fabricated photoelectrochemical solar cell under AM 1.5 condition with an input intensity of $\approx 100\ mW/cm^2$ for solar power efficiency measurements. Keithley Voltmeters and Ammeters were used for voltage and current measurements.

3. Results and Discussions

3.1 Powder X-ray diffraction Studies

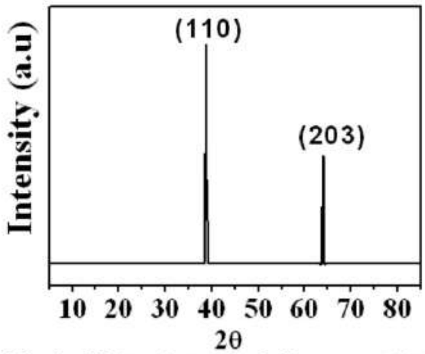

Fig. 1 XRD pattern of a $CdSe_{0.7}Te_{0.3}$ thin film

Powder X-ray diffraction studies of $CdSe_{0.7}Te_{0.3}$ on bare glass plates was studied using Cu-K_{α} radiation ($\lambda \approx 1.542\,\text{Å}$). The X-ray diffraction pattern showed prominent peaks for variation diffracting angles. The calculated d-values from the XRD pattern was tallied with those of other workers [5]. The $CdSe_{0.7}Te_{0.3}$ structure exhibits Hexagonal symmetry with lattice constants with $a_o \approx 4.234$ Å and $c_o \approx$ 7.341 Å.

The lattice constants were calculated by using the equation [6]:

$$\frac{1}{d^2} = \frac{4}{3}\left(\frac{h^2 + hk + k^2}{a_o^2}\right) + \frac{l^2}{c_o^2}$$

Fig, 1. shows a typical XRD pattern for an as-grown $CdSe_{0.7}Te_{0.3}$ thin film. Xpert HighScore software was used to find the *d*-values & estimate the structure of the $CdSe_{0.7}Te_{0.3}$ thin film material and *h k l* values corresponding to each of the peaks.

3.2 Optical Absoprtion Studies

The thin films of $CdSe_{0.7}Te_{0.3}$ deposited over bare glass plates were used to study the optical absorption in the UV-VIS-IR region from wavelengths of $\lambda \approx 450\,nm \;\; to\; 750\,nm$. The variation of $\log_{10}(I_o/I)$ vs wavelength (λ) plot is shown. It is seen from Fig. 2 that the $CdSe_{0.7}Te_{0.3}$ thin film shows a strong absorption from 710 to 790 nm region, . In the UV-VIS-IR region the optical absorption constant, α was calculated from the optical density data. As per the Pankov [6] the optical absorption coefficient, α, is related to the incident frequency by the following relation:

$$\alpha \approx \frac{A^*}{h\nu}(h\nu - E_g)^{\frac{1}{2}}$$

Where ν is the frequency of incident light, *h* is the Planck's constant, E_g is the bandgap of the semiconductor and the coefficient, A^* is given by:

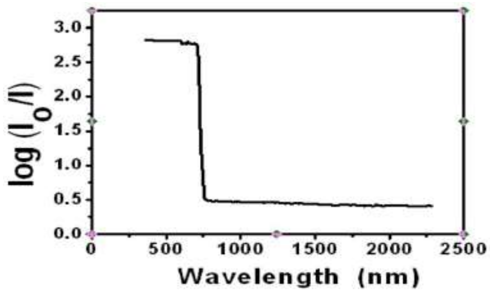

Fig. 2: A typical plot of log (Io/I) vs Wavelength (nm)

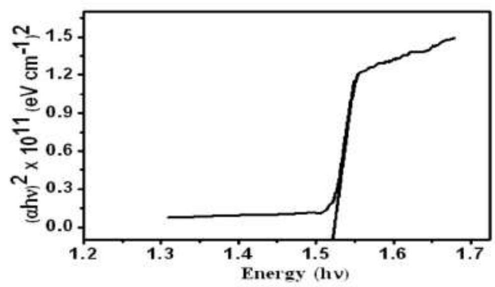

Fig. 2 A. A typical Tauc Plot for $CdSe_{0.7}Te_{0.3}$ Thin film

$$A^* \approx q^2 \left(\frac{2m_e^* m_h^*}{m_e^* + m_h^*}\right)(nch^2 m_e^*)^{-1}$$

Where m_e^* and m_h^* are the effective electron and hole masses respectively, ***c*** is the speed of light, ***h*** is the Planck's constant and ***n*** is the refractive index. Therefore, a Tauc Plot [10], i.e., a plot of $(\alpha h\nu)^2$ vs $h\nu$ gives a straight line. The intercept of the plot on the Energy axis ($h\nu$) gives the optical band gap of the $CdSe_{0.7}Te_{0.3}$, which is a direct band gap, $E_g \approx 1.52$ eV this value matches with the values obtained from literature [5]. A typical Tauc Plot [10] is shown in Fig. 2A. .

3.3. Solar Power Studies of $CdSe_{0.7}Te_{0.3}$/Polysulphide Photoelectrochemical Solar Cell

A photoelectrochemical solar cell comprising of $CdSe_{0.7}Te_{0.3}$ as photoanode and Polysulphide as a Redox electrolyte with a close Graphite as a counter electrode was used to fabricate. The Solar Cell was illuminated with white light of 100 mW/cm^2 input intensity under AM 1.5 conditions. A typical profile was seen for the power output with Open circuit voltage being 550 mV and a Short Circuit Current density being 4500 μA/cm^2. The efficiency (η) of the solar cell was calculated from the formula [8-9]:

$$\eta\ (\%) \approx \frac{V_{mp} \cdot J_{mp}}{100\ mW/cm^2} \times 100$$

It is seen from the Fig. 3 that the efficiency of photoelectrochemical solar cell was ≈ 1.4 %. This low efficiency is due to the fact that during vacuum thermal evaporation, the substrates are kept at room temperature. As the evaporating semiconductor material condenses, it faces a large temperature gradient. This leads to frozen in defects and thus small grains. These grains are separated by large number of grain boundaries. The minority generated carriers during optical illumination of photoelectrochemical solar cell, face a large amount of scattering at these grain boundaries. Thus the photocurrent and therefore photocurrent density gets reduced by a substantial amount leading to low power conversion efficiency. Large no. of grain boundaries lead to high contact resistance at the contact junction of thin film and external wire and thus the minority generated photocurrent carriers are scattered more eventually contributing to lower solar power conversion efficiency. The presence of large grain boundaries also lead to leakage of carriers thus decrease of Shunt resistance. For an ideal solar cell, we need zero series resistance and infinite shunt resistance to achieve 100 % solar power conversion efficiency.

4.0. Conclusion

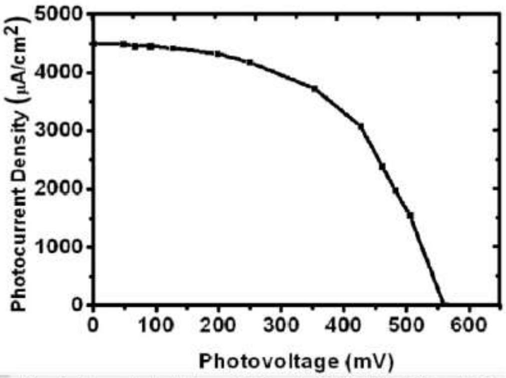

Fig. 3: Power Output characteristics of a $CdSe_{0.7}Te_{0.3}$/Polysulphide photoelectrochemical solar cell

Thin films of $CdSe_{0.7}Te_{0.3}$ were characterized by Powder X-ray diffraction (XRD). The obtained *d*-values corresponding to diffracting peaks tallied well with the other researchers. The XRD pattern revealed that the thin films exhibited Hexagonal symmetry with lattice constants as $a_o \approx 4.234$ Å and $c_o \approx$ 7.341 Å. The optical absorption studies on the thin films of $CdSe_{0.7}Te_{0.3}$

showed that the thin film material shows a direct band gap in the optical region with a direct band gap of $E_g \approx 1.52$ eV. This material is well suitable for fabricating solar cells. A redox electrolyte namely, (aq) Polysulphide was used for fabrication of photoelectrochemical solar cell. The solar cell showed a power conversion efficiency of $\approx$ 1.4 % under white light illumination. The reasons for low efficiency being small grain size and thus large amount of grain boundaries which act as scattering centres for the photogenerated minority carriers thereby reducing the photocurrent density and photovoltage.

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Role Of Farm Mechanisation In Sustainable Agricultural Development

Dimple M. Juneja[1]
Research Scholar
Dada Ramchand Bakhru Sindhu Mahavidyalaya,Panchpaoli Nagpur
Mob. No. :- 8237721657
Email :- djuneja2050@gmail.com

Dr Anand Thadani[2]
Vice Principal
Dada Ramchand Bakhru Sindhu Mahavidyalaya, Panchpaoli, Nagpur
Mob. No. :- 9423108747
Email :- agthadani@gmail.com

Abstract

Mechanisation is crucial in the context of increasing commercialization of agriculture. The use of agricultural machinery is continuously increasing in Indian agriculture as it contributes to increased productivity through timely operations and more precise use of inputs. Compared to developed countries where agricultural Mechanisation is over 90%, the level of mechanisation in India is still between 40% and 45%. The introduction of Mechanisation in Indian agriculture is urgent and a need of the hour for continuous and sustainable development. The adoption of mechanised solutions in Indian agriculture is driven by a number of macroeconomic and inherent factors, including growing population, urbanisation, increase in agricultural exports such as tractors, improvement in agricultural credit, labour churn and labour shortage, in addition to the agricultural, social and economic growth factors of mechanisation. In the current scenario, agricultural mechanisation startups, especially those based on the Farming as a Service (FAAS) model, are rapidly integrating technologies, with a focus on precision agriculture in India. To increase the effectiveness of their machines and gain a competitive edge, most agricultural machinery manufacturers are currently focusing on integrating various technologies such as robotics, global positioning system (GPS) and navigation systems. This is paving the way for farm mechanisation in Indian agriculture.

Keywords: agricultural productivity, farm mechanisation, sustainable development goals

Introduction

Indian agriculture has made its presence felt at the global level. India is among the leading countries in the world in the production of a number of crops such as rice, wheat, sugarcane, fruits and vegetables. Despite this potential, however, two major bottlenecks have emerged that may become insurmountable problems in the foreseeable future: stagnant productivity per hectare and shortages of agricultural labour. There is ample evidence that productivity improves dramatically with the use of more agricultural energy. It is estimated that the use of appropriate equipment can increase productivity by up to 30% and reduce costs by about 20%. Indian agriculture has evolved far beyond staple food production since the early 2000s. Indian farmers are adapting to agricultural mechanisation faster than ever before. Sales of tractors in India cannot be considered the only measure of agricultural mechanisation, but it does reflect to a greater extent the degree of mechanisation. The Indian tractor industry has become the largest in the world, accounting for one-third of total world production. While the opportunities in the Indian agricultural machinery sector are immense, the sector faces challenges on several fronts. Unlike other agricultural sectors, the agricultural machinery sector has a much more complex structural composition. It has been observed that the performance of the sector depends on the interplay of several factors, including financial aspects such as capital and interest rates, lack of data, small and scattered land holdings, etc. Innovations in the agricultural machinery sector will drive the next phase of agricultural growth in the country. The Indian government has been promoting mechanisation through various policy interventions. The technologies that have evolved in the farm machinery sector in recent years have tremendous potential to realise the vision of the Make in India initiative, which promotes innovation and investment. The knowledge paper examines the current state of agricultural mechanisation in India. The paper also highlights the issues in the farm machinery sector and reflects the suggestions and opinions of various stakeholders collected through structured interviews. The report then proposes measures to transform Indian agriculture through mechanisation. It also presents best practises from different countries.

Status of agricultural mechanisation in India

The level of mechanisation in Indian agriculture is still quite low at 40-45% compared to developed countries where the level of mechanisation is over 90%. There are also differences in the quality of mechanisation, especially in terms of use of ICT integration, use of greener technologies, etc. Agricultural mechanisation not only ensures the best use of resources such as land, labour, and water, but also saves farmers time and reduces drudgery. According to the Economic Survey, there is a direct relationship between agricultural mechanisation and crop productivity, as agricultural mechanisation increases crop yields and farmers' income while saving time and labour, reducing drudgery, lowering production costs in the long run, and reducing post-harvest losses (Gurung et al., 2017).

The use of more modern agricultural machinery has the potential to increase production by up to 30 percent and reduce cultivation costs by up to 20 percent. Compared to previous years, Indian farmers are currently adopting agricultural mechanisation at a faster rate. Tractor sales in India are not the only indicator of agricultural mechanisation, but they give a good indication of the level of mechanisation. India now has the largest tractor industry in the world, producing nearly one-third of all tractors manufactured worldwide. Agricultural mechanisation is one of the top ten technological achievements of the 20th century. One of the most important achievements of the twentieth century was the mechanisation of agriculture. Agricultural mechanisation is positively evaluated by people all over the world as one of the most important components of agricultural modernization. The scale and proper selection of agricultural mechanisation directly improve labor and land productivity, effective use of agricultural inputs, farm income, and farmers' living standards.

Impact of mechanisation on agricultural productivity

Agricultural mechanisation is considered the ultimate in reducing human labor and increasing agricultural productivity. In the post-Green Revolution period, the impact of agricultural mechanisation on agricultural production and productivity has been well recognized Volume 4 Issue 3 July 2016 ISSN: 2320 - 4168 Shanlax International Journal of Commerce 217 in India. Depending on the use of other inputs such as irrigation, high yielding seed varieties, chemical fertilizers, herbicides and pesticides, different states in India have achieved different levels of mechanisation. As a result, agricultural production and productivity have increased three to four times. Various organizations and individuals have conducted studies showing the impact of agricultural mechanisation on agricultural production and productivity. Singh and Singh (1972) concluded that tractor farms had higher yields of wheat, paddy, and sugarcane and produced a higher overall gross yield per acre than farms without tractors. NCAER (1973) compared values of annual agricultural production per hectare of net cropland under different levels of mechanisation. Yield per acre was found to increase with increasing levels of mechanisation from irrigated, nonmechanized farms to farms with tube wells and tractor threshing machines. Singh and Chancellor (1974) found that while tractor and tube well farms had significantly higher yields than ox farms for wheat, much of the difference was due to other factors such as the degree of irrigation. The use of tube wells was found to be associated with significantly higher yields than Persian wheel irrigation. ITES, Madras (1975) found that tractor-owned farms increased productivity of paddy, sugarcane, and groundnut by 4.1 to 28.3 percent, 13.1 to 34.2 percent, and 9.8 to 54.8 percent, with an average of 15.8 percent, 23.2 percent, and 31.8 percent, respectively. Similarly, the average increase in productivity on farms renting tractors was reported to be 11.8 percent, 13.0 percent, and 16.0 percent for paddy, sugarcane, and groundnut, respectively. Pathak et al. (1978) studied five different categories of farms in Ludhiana district of Punjab to assess the impact of energy sources on production and productivity. Paddy yield was found to be higher on tractor farms than on bullock farms. The yield of wheat after paddy or maize was significantly higher on tractor farms than on ox farms. The use of tractors increased farm productivity due to better seedbed preparation, timely operations, and precision in seed and fertilizer distribution and application through the use of drills with seedand fertilizer. NCAER (1980) conducted a survey of farms that owned tractors, used tractors in contract labor, and owned oxen in seven states belonging to three major agro-climatic zones. A sample of 815 farm households was randomly selected from 85 villages. It was reported that an average farm that owned a tractor had higher yields than a farm that used oxen. These varied by crop and ranged from 72 percent for sorghum to 7 percent for cotton. Tractor-owned farms also had higher yields than oxen-owned farms. In most studies, higher yields on tractor farms were associated with greater use of fertilizer and irrigation, but this was not statistically tested. An exception was the study conducted by Kahlon (1976) in Punjab, which found no statistically significant effect on yields. When wheat yields increased significantly, fertilizer use increased in one area Volume 4 Issue 3 July 2016 ISSN: 2320 - 4168 Shanlax International Journal of Commerce 218 However, tractor farms used 35% more fertilizer, so these increases cannot be attributed solely to tractors.

Significance of the study

Sustainable mechanisation is a means to an end. Farmers who have access to improved agricultural tools and powered technologies can move from subsistence farming to more market-oriented agriculture, making the agricultural sector more attractive to rural youth. Sustainable mechanisation supports the development of food supply chains through improved agricultural practices to increase production and improve food security.

Sustainable mechanisation is used in agricultural land preparation, supports timely seeding and planting, weed control, integrated pest management, precise fertilizer application, harvesting, preparation for storage, and value addition along the food supply chain in the form of on-farm processing, transportation, and marketing.

Conservation agriculture and "Save and Grow

Sustainable mechanisation applies the principles of Conservation Agriculture and the Save and Grow paradigm to ensure that farming is both productive and profitable for farmers while helping to conserve resources and ecosystem services. As the impacts of climate change and natural resource depletion become more apparent, large-scale adoption of conservation agriculture practices - which protect soil, conserve water, use less energy, and use inputs more efficiently and precisely - will be critical to maintaining and sustainably improving food production and distribution.

Importance ofmechanisation

Mechanisation is a critical factor in agricultural crop production that has been neglected in the past in developing countries. Factors that limit the availability of agricultural power affect the ability to farm sufficient land and have long been recognized as a cause of poverty, particularly in sub-Saharan Africa. Improving the power supply to agriculture means that more tasks can be done at the right time and larger areas can be farmed to produce greater quantities of crops while conserving natural resources. The use of new, environmentally friendly technologies allows farmers to produce more efficiently with less energy.

Sustainable agricultural mechanisation can also make an important contribution to the development of value chains and food systems, as it has the potential to make post-harvest, processing, and marketing activities and functions more efficient, effective, and environmentally friendly.

Sustainable mechanisation can: - increase crop productivity by facilitating timeliness and quality of cultivation; - support opportunities that alleviate labor shortages and enable households to better withstand shocks; - reduce the environmental footprint of agriculture when combined with appropriate conservation agriculture practices; and - reduce poverty and achieve food security while improving people's livelihoods.

Innovation and sustainable practices consistent with the 'Save and Grow' paradigm and conservation agriculture practices

Save and Grow is a paradigm of sustainable intensification of crop production that is both highly productive and environmentally sustainable, and therefore uses more precise and energy-efficient production technologies (such as reduced and no-till practices). It also promotes the use of conservation agriculture practices that increase yields while restoring soil health, and is fully consistent with the principles of climate-smart agriculture. It builds resilience to climate change and reduces greenhouse gas emissions, for example, by increasing carbon sequestration in the soil.

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Developing new machinery and techniques that are more precise and environmentally friendly is essential. For example, maintaining a permanent ground cover and direct seeding through plant cover does not directly expose fragile soil to solar radiation, high winds, or heavy rainfall.

Agricultural mechanisation strategies

A sustainable mechanisation strategy can create an enabling policy framework and institutional and market environment in which farmers and other end users have a wide choice of farm machinery and equipment to meet their needs within a sustainable supply and support system. This also enables the promotion of new sources of farm machinery that are best suited to local conditions.

Sustainable economic enterprises and business models for mechanisation

The creation of viable businesses, rental services, agricultural processing companies, transportation services, etc. is critical to creating employment and income opportunities. Assessments will be conducted to identify appropriate business models to meet a wide range of local conditions.

Conclusion

Progress in agricultural mechanisation in India is hindered by some features of Indian agriculture, such as the fragmentation of land ownership, the large number of small and marginal farmers, the unavailability of advanced agricultural technology, and the practise of subsistence agriculture. Agricultural mechanisation is critical to the modernization and commercialization of the sector, as it increases the efficiency and productivity of farming activities, promotes value addition, lowers the cost of cultivation, and facilitates adaptation to climate change. In India, agricultural mechanisation is expected to increase rapidly given national and global drivers. Therefore, there is no question that mechanisation needs to be improved to increase agricultural productivity and stabilise the economy. Given the existing demand, modern agricultural machinery has enabled farmers to complete work from sowing to harvesting as quickly as possible, even releasing equipment for rent by neighbours to order. A strong focus on integrating science and technology into agricultural technology would open up new opportunities and accelerate the evolution of agricultural technology toward a new mechanisation that combines automation with agricultural mechanisation.

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Blended Teaching and Learning:A Modern Way of Education

Dr. Dini Menon
Assistant Professor, Dept. of Commerce, Hislop College, Nagpur,E-mail Id: dini2021@gmail.com

Abstract

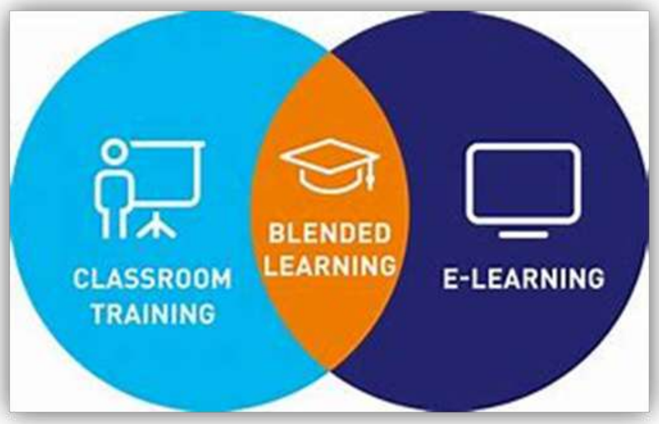
In today's world, technological upliftment is happening in every sector, this transformation is happening in the education field also. Today technology plays a vital role in knowledge generation and in the learning process. The concept of education is changing drastically because of the introduction of new means of education. With the pandemic effect, the need for technological development in the education field is the need of the hour. This change everyone can feel, as teachers and students are busy with virtual learning. With time it is realized that both traditional teaching and modern teaching with the help of technology is essential for the overall growth of the learners. Today with this change one of the important concepts came into existence that is blended learning system. In blended learning, students can learn through digital mode as well as the traditional way of teaching. The blended learning system is student-centric also known as Hybrid learning. The advantage of this system is that the beneficiary can get more scope for learning on their own with the help of virtual platforms as per their time availability. In recent times UGC has also promoted for blended learning system.This paper deals with the importance and implementation of blended teaching and learning system in modern education system.

Key words: Blended teaching learning, modern education system

Introduction

"We want that education, by which character is formed, the strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet."- Swami Vivekananda

In modern education system, the new way of blended teaching andlearning system emerged as a boon for the practical and convenient learning experience for the stakeholders of HEIs. In blended learning system teachers are free to provide individual interaction with their peers in innovative way. In HEIs,with technological development the blended learning system give more potentials for effective communication and interaction among teachers and students. Education Elements, which develops hybrid learning technologies,stated that with effective blended learning there will be good coordination between technology and teaching, by utilizing the teaching material in advanced way and it reaches to the students in different learning styles. In the current situation blended learning is a very effective mode of learning which facilitate the modern education system.It surges flexibility to peer groups by allowing access to online content at their own pace.



Purpose and Method of study

The current research has been conducted to know the overall structure of blended teaching and learning in modern education system, also highlighted the importance, model and challenges of blended learning system.

The study is purely based on secondary data. The relevant data was collected from various sources of information such as Research Papers, Reports, Books, Websites etc.

Importance of Blended teaching and learning

In the modern education era, the upsurge of blended teaching and learning system transformed the education system for the learners by merging traditional teaching with virtual learning. It is a mixture of instructor-led teaching and self-paced e-learning activities, letting learners to access the study materials as per their need and requirements. It gives more opportunities for the teachers to generate effectively appealing, modified and evocative learning resources for their peer group.This learning system helps students to acquire various skills like communication, critical thinking, team work and leadership which is essential for framing the successful career. Blended learning as a modern influential learning device improves the performance of the students and support them to achieve their goal. In current scenario blended learning is significant as it breaks downs the traditional way of teaching which is not suitable with current education system.With the adaptation of technology and online resources Higher Education Institutes can create new teaching and learning process for the students. Through the blended teaching learning system modern education can attain various benefits as follows: -

Effective learning: Blended learning adopts both online and offline technologies. By providing teachers to apply latest learning trends and make the necessity changes in the course instruction process. Also, for the peer groups blended learning offers exclusive chance to deliberate and exercise the new knowledge at their own speed.

Flexible: Blended learning helps teachers to coordinate with peer group as per their schedule and locations, by letting better customization and personalization of the learning experience. It also helps the students to use study material from their homes or where ever they are by making the learning flexible. This offers effective learning environment for teacher and students.

Better engagement: Blended learning improve the student's engagement in the classroom as they can join from their comfortable place also utilise the study material as an when required. This method also allows learners to study at their own speed as per their condition by providing engaging learning atmosphere for them.

Improved and user friendly: This method of learning minimises the physical attendance in classroom, letting learners to learn as per their available resources with the help of internet connection. It also helps teachers to approach those students too who are unable to attend physical classrooms.

Endorse student ownership: Blended learning imparts a sense of 'student ownership over learning' which can be a powerful force propelling the learning.It is this sense of responsibility that benefits the feeling of ownership for the learners.

Blended Teaching and Learning Models

The model of blended teaching and learning system vary from institution to institution as per their criterion. The HEIs can create the blended learning model which can be teacher and student friendly. The basic model of the blended learning model includes:

a)**Online mode**: The teacher and students connect through the online mode of communication with periodic face-to-face meeting.

b) **Rotation**: The learners switch the learning process from self-paced virtual mode to class room teaching as per the flexible schedule.

c)**Flex**: Most of the information is distributed online by the teachers with support of various groups involved in this process.

d) **Customised blend**: Teacher creates a model which can be use one to one and used anytime, anywhere which includes physical classroom and virtual spaces. The process of learning is persistent and time is flexible.

e)**Online platform**: All the instructions are delivered in lab by the teachers with the help of technical professionals.

f) **Face to face**: The instruction is transferred by the teachers to the learners by face to face with the help of technology in the classroom or in the lab.

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Challenges of blended teaching and learning system

With the rapid growth of digitalisation, the students are inclined towards digital way of learning and acquiring the information through various web sources. This change is an initiative towards blended teaching and learning system which will result into creation of skilled and multifaceted work force. In a less time the maximum information can be acquired but there are some pros and cons of every new way of learning, thus there are few challenges one can face in this process:

Technological limitations: one of the first limitation for smooth functioning of this method, is less interest and exposure of the teacher and students towards technology which will have negative impact in the implementation of this system. The HEIs will have toinstall the related lab to facilitate theoverall process in the institutions.

Wide learning gap: In India, majority of the people especially in rural area are not friendly with the online system, that is creating a barrier in implementation of the blended learning system resulting into creation ofgap in leaning process.

Handling physical restrictions: Today also many stakeholders in the HEIs are comfortable with the traditional way of teaching and not fully support the online way of teaching. So, it is difficult to adopt the blended learning system everywhere.

Too much of information leads to confusion: Due to blended learning system teachers and students are getting too much of information easily which create chaos in whole process, that leads to the confusion.

Conclusion

Blended teaching and learning system havemade an impact on the modern education system. In this system, the combination of traditional classroom and online mode of learning creates more opportunities for the learners by interacting in different way also provides various platforms to generate the knowledge. This system improves communication skill of the students and develop good relation and trust among teacher and students. Blended learning system provides varied, available and modified method of learning for the learners at their own speed. The teacher can apply traditional way of teaching as well as can adopt new way of teaching which engages and interacts with the peer groups face to face in digital learning environment. In modern education system, the blended learning system effectively carries the data and raises the coordination between the teacher, pupils and management. In current scenario with the help of advanced technology, the blended teaching and learning system will bring miracle in Higher education system which will bring a positive change in wholeeducation system.

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The Study Of Research In Sustainable Marketing And Sustainable Innovation In Current Perspective

Dr. Ganesh S. Maywade
Department of Economics, Sant Gadge Maharaj Mahavidyalaya
Hingna Nagpur-441110 ,Email id : ganeshmaywade@gmail.com ,M.No.: 9423638645

Abstract:

Sustainable marketing gives importance to today's needs of consumers and businesses and at the same time preserves and enhances the abilities of the coming generations so that their needs can also be taken care of. A comparison can also be made between the sustainable marketing concept and the residual marketing concept. The marketing concept identifies the current needs and wants of the target customers by determining the day-to-day functioning of the organization and fulfilling them efficiently. It focuses on the needs of the teams to have short-term sales, growth, and profit and also focuses on the wishes of the customers and facilitates them. However, by immediately satisfying the needs of the consumers, their future wants cannot be understood. While the social marketing concept values the future welfare of consumers and the strategic planning concept values the future needs of groups, the sustainable marketing concept values both. Continuous innovation is vital to a company's survival and growth. Firms that do not innovate tend to lag behind their competitors and eventually go out of business. However, traditional innovation forms may result in the loss of employees or over-exploitation of natural resources. "Sustainable innovation" aims to address those unintended social and environmental impacts. It involves changing a company's products, services, or processes to achieve long-term social and environmental benefits while generating economic profits. In this research paper, research in sustainable marketing and sustainable innovation in the current perspectivehas been studied.

Keywords: Sustainable Marketing, Sustainable Innovation, Traditional Innovation, Environment

Introduction:

Sustainable marketing which implies that the team should position its view and marketing activities from the point of view of consumers is a customer-oriented marketing principle. Customer value marketing is a sustainable marketing principle that refers to the team investing its resources in customer value marketing. Innovative marketing is a principle of continuous marketing that reflects the need for a team to seek product and marketing improvements. Mission sense marketing is the principle of sustainable marketing which suggests that the team should formulate its mission for the wider society. Social marketing is a principle of sustainable marketing which suggests that a group should adopt its marketing decisions considering consumer needs, long-term needs of the group, interests, and social desires.

There are five key elements of 'sustainable marketing'. These include incorporating sustainable business practices into your business strategy, delivering marketing activities to an ongoing development situation, supporting sustainable business, influencing other businesses to adopt sustainable business, and employing business resources to the minimum. is included.

Environmentally and socially sustainable marketing meets the future and present needs of customers and organizations. Truly sustainable marketing requires a functional marketing system in which consumers, organizations, and public policymakers work together to ensure ethical actions and social needs. A sustainable innovation approach can generate tangible benefits for businesses. For example, research shows that companies that consider stakeholders produce more patents and more influential patents. Marketing receives many criticisms. Some criticisms are justified, some are not. Social critics claim that some marketing policies hurt consumers, society as a whole, and many firms. Many critics charge that the American marketing system, which is increasingly being adopted globally, causes higher prices. Three factors have been attributed to this - a) High distribution cost - It has been a long-standing charge that greedy channel middlemen quote prices higher than their service. Critics point out that there are too many middlemen who are inefficient and provide useless services.

Due to this, the delivery cost is high and consumers pay more. b) High advertising and promotion costs - Modern marketing has also been accused of heavy advertising and promotion costs. Marketers respond that advertising covers production costs. It also informs potential buyers and reflects the brand's merits. e) Excessive Markup - Some parties mark up their products excessively. Marketers answer that many businesses try to relate to consumers. And repeat your business. Marketers would also point out that many times the reasons for high markups are not known to the customers.

Marketers are sometimes accused of deceptive practices by tricking customers into false practices. Deceptive practices are in three parts- a) Pricing b) Promotion c) Packaging Marketers argue that many companies avoid deceptive practices because these practices harm their business in the long run and are not sustainable. People are accused of high sales pressure which lures people into buying unnecessary products. However, upselling build relationships with consumers. High pressure and deceptive sales can spoil these relationships. Critics argue that some parties favor obsolescence planning, which makes their products obsolete before they can be replaced. Marketers respond that consumers love a change of style. They get bored with the old stuff and want to see something new in style. The marketing system has been accused of giving importance to various evils in society. Critics have pointed out that the marketing system insists on materialism and is overly interested in it. This affair with the consumers is not continuous. Some parties have adopted unfair competitive practices with the intent to destroy other parties. They lower their prices below cost, threaten to cut off business from suppliers or discourage people from buying competitors' products. While this is to prove that their intention is predatory.

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

1) To study the relationship between the development of marketing systems with ecological variables.
2) Examining the impact of marketing activities on the environment.
3) To study research in sustainable marketing and sustainable innovation in the current perspective.

Research in Sustainable Marketing and Sustainable Innovation in Current Perspective:

In the present perspective technological innovations not only direct but also determine the status of environmental resources utilization and the social as well as economic development of organizations. Economic organization is of prime importance for regional development. Agriculture, mining, industry, and transport are the basic components of an economic organization, which promote the formation and development of market centers. Thus, market centers are the major components of economic organization. An effective marketing system is essential for regional economic development. Green marketing emphasizes the 'environmental' aspects of a marketing plan, while sustainable marketing focuses on presenting a comprehensive vision of a better future that reconciles society, businesses, and the environment. The process of selling products and services based on their environmental benefits is called 'Green Marketing'. All those purchases/sales come under this, through which human needs can be fulfilled and at the same time, minimum damage to the environment is done. Many big companies around the world have taken initiative in this direction.

In the present context, green marketing is marketing based on the environmental benefits of the products. Simply put, it highlights their sustainability and is used to promote products. It can also be found in some places as "eco-marketing", one of the biggest trends in recent years. After supporting the health of the environment, a substantial number of people are changing the way they live and buy. Green marketing is a type of eco-friendly marketing where products and services are promoted based on their environmental benefits. Green marketing can also be defined as the marketing of eco-friendly products. Which is not harmful to the environment and they are produced using eco-friendly production processes. Green marketing emphasizes the 'environmental' aspects of a marketing plan, while sustainable marketing focuses on presenting a comprehensive vision of a better future that reconciles society, businesses, and the environment. The process of selling products and services based on their environmental benefits is called 'Green Marketing'. All those purchases/sales come under this, through which human needs can be fulfilled and at the same time, minimum damage to the environment is done.

Greenwashing in the present context is a process in which companies use environmental ideas without actually adopting them in their core values. Thankfully, the media prompts individuals to look beyond flashy packaging and carefully placed words. Sustainable marketing, on the other hand, takes the concept of "green" to new heights. It emphasizes raising awareness for a brighter, more sustainable future. To achieve harmony between humans andnature, sustainability addresses environmental degradation climate change inequality,justice, andpoverty peace. On the other hand, sustainable marketing has a wider scope. Companies in this sector strive to promote a balanced approach that considers not only the environment but also the needs of customers, the long-term interests of society, and global well-being.

Both Sustainable Marketing and Green Marketing should focus on promoting eco-friendly or sustainable products or services. Since the potential for discontinuation of sustainable products and practices is high, and the implementation of those can be costly, many businesses try to take shortcuts. They try to attract consumers by using green marketing to sell products that are not considered green, and this is called greenwashing. These businesses try to make their products appear eco-friendly when they are not. A simple example of this is using the color green to their advantage. Colors have a big influence on buying decisions because we have some perception of them in our minds. Many businesses use green for their packaging and add the words green somewhere on it which doesn't mean it is eco-friendly, but many people think it is and buy it anyway.

Sustainability is the idea of producing products (goods and services) in a way that does not use resources that cannot be replaced and do not harm the environment. Stability is the ability to maintain a specific level for some time. Sustainability is a symbol of society's progress and advancement towards a prosperous and more stable world, which can preserve the natural environment and cultural achievements for generations to come. Sustainability is an essential component of a company's strategy, providing the long-term success it needs for the future of people and the planet. A survey conducted by McKinsey suggests that companies are increasingly integrating sustainability preferences into their businesses. Firms are pursuing social and environmental sustainability in ways that are far removed from the organization's reputation. Environmental sustainability is called the consumption rate of natural resources and it must either be less than the rate at which natural resources are renewed or an alternative must be used, generating fewer emissions and avoiding activities that are degrading ecosystems. Social sustainability is defined as actively conserving and building skills as well as capabilities of future generations, supporting health facilities, and promoting equitable and democratic actions that an organization Allows a good standard of living inside and out. Context. “Sustainability is a company's ability to prosper in a highly competitive and changing global business environment. Companies that anticipate and manage current and future economic, environmental, and social opportunities and risks by focusing on quality, innovation, and productivity will emerge as leaders who are more likely to create competitive advantage and long-term stakeholder value.

By building sustainability into innovation in the present context, companies can create products, services, and processes that are good for both society and the organization. "The Basics" provides essential knowledge about core business sustainability topics. Innovation is vital to a company's survival and growth. Firms that do not innovate tend to lag behind their competitors and eventually go out of business. However, traditional forms of innovation can result in profitable products, services, and processes – but can also harm employees or over-exploit natural resources.

"Sustainable innovation" seeks to address those unintended social and environmental impacts. This means that companies can provide products and services that are good for themselves and society in the long run. This article explains what sustainable innovation means, why it is important, and how to practice it. Sustainable innovation involves making deliberate changes to a company's products, services, or processes to generate long-term social and environmental benefits while generating economic benefits for the firm.

Sustainable innovation is not just about inventing novel products or services. Firms can also sustainably innovate when offering existing products or services when they change their processes. Process changes can occur in many areas, such as design, production, marketing, and even human resources. Some may wonder how these sustainable innovations differ from traditional forms of innovation. After all, both traditional and sustainable innovation involves developing new products, services, or processes. Three main characteristics distinguish sustainable innovation. Continuous innovations contribute to sustainable businesses. Sustainable innovation deliberately aims to "meet the needs of the present generation without compromising the needs of future generations". This requires businesses to actively incorporate issues such as human rights and climate change into their innovation processes. Companies engaging in sustainable innovation go beyond seeking immediate profits. They think long-term, investing in technologies and people for the future. Sustainable innovations require systems thinking. When companies engage in sustainable innovation, they don't just focus on their organization. Instead, they look more broadly at the entire system of which they are a part – including other companies, the natural environment, and stakeholders and communities. They have a good understanding of how their actions affect other organizations.

Sustainable innovations should be embedded in the culture of the firm. Unlike traditional innovations, which are mostly done within a separate R&D department or unit, sustainable innovations are likely to be more successful when they are deeply embedded in the firm's culture. When sustainability is not part of the corporate culture, the pursuit of short-term profits will kill sustainability-oriented creative ideas without giving them enough time to mature. After all, companies are successful when they are sustainable. First, sustainable companies attract talented employees. Compared to their non-sustainable competitors, sustainability-oriented companies bring in better people.

Conclusion:

In India, too many corporate groups have moved towards sustainable business and marketing. The cooperation of companies is essential for realizing sustainable development. If not today then tomorrow they will have to adopt sustainable marketing. For this, companies will not only have to mobilize the necessary resources but also develop long-term partnerships, taking all stakeholders on board. Many big companies around the world have taken initiative in this direction. In India, too many corporate groups have moved towards sustainable business and marketing. The cooperation of companies is essential for realizing sustainable development. If not today then tomorrow they will have to adopt sustainable marketing. For this, companies will not only have to mobilize the necessary resources but also develop long-term partnerships, taking all stakeholders on board. Through sustainable innovation, companies can invent and offer new products or services that contribute directly to achieving sustainability.

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A Study Of The Problems Of Agricultural Laborers In India And The Measures Taken By The Government For Their Amelioration

Dr. (Mrs.) Prachi Rode
Professor Santaji Mahavidyalaya, Nagpur

Abstract:

About 53% of India's population is engaged in agricultural activities and agriculture in India is still at the mercy of the monsoon. Here, the activities of farmers and agricultural laborers depend on the intensity of the monsoon. If the monsoon is good then the crop will also be good otherwise not. Agricultural labor is counted in the category of unorganized sector, so their income is also not fixed. So they are living an insecure and deprived life with complete uncertainty of a mere Rs.150 per day wages. Agricultural laborers are one of the most exploited and oppressed sections in the rural hierarchy. This class faces many types of problems in their personal life. Agricultural laborers are the poorest, most backward, and neglected section of the Indian agricultural set-up. People of this class do not have alternative employment opportunities as they do not have the skills to do any other work. Socially, most of the agricultural laborers are also very suppressed because they belong to the Scheduled Castes and Scheduled Tribes. Apart from this, they do not have strong organizations in any state which can protect their rights. Overall, the effect of all these things is that there has been no improvement in their economic condition even after independence. In this research paper, the problems of agricultural laborers in India and the measures taken by the government for their amelioration have been studied.

Keywords: Agricultural Laboure, Agricultural Activities, Crops, Unorganized Sector, Backward and Neglected Classes, Alternative Employment

Introduction:

According to the First Agricultural Laborers Inquiry Committee 1950-51, agricultural laborers are those people who work on farms for wages. In the Indian context, where many people do not work on farms throughout the year for wages, this definition does not make much sense. The committee, therefore, further clarified that any person who works in agriculture for 50 percent or more days in exchange for wages should be considered an agricultural labourer. This committee also defined an agricultural labourer family. In the opinion of the committee, if the main occupation of the head of a family or 50 percent or more earning members is agricultural labour, it should be considered an agricultural labour family.

According to the National Labour Commission, the main source of income for agricultural laborers is farm labour. They have nothing else to earn their livelihood except their labour. Agricultural laborers are often unskilled as well as unorganized. For the 1961 census, the category of agricultural laborers included all those workers who worked on the farms of others. The wages could be paid to them in cash or kind or both. For the 1971 census, a distinction was made between laborers and non-laborers in the agricultural sector, and those who worked on other's farms as a secondary activity were not included in the category of agricultural laborers.

All those people are agricultural laborers who work in other's fields. And the wages they get for this work are their main source of income. Such people usually earn their livelihood by working as laborers in the agriculture sector for most of the year. A person who works on a person's land only as a labourer. And in return for his labour he receives wages in the form of rupees or crops. And is not responsible for the operation, supervision, or risk of profit-loss of the work, nor does the labourer get any rights about that land. That person is called an agricultural labourer.

There has been a steady increase in the number of agricultural laborers during the plan period. The number of agricultural laborers was 2 crore 75 lakhs in 1951, which increased to 7 crores 37 lakhs in 1981 and 14 crores in 43 lakhs in 2011. Since the total number of workers in 2011 was 48 crore 17 lakhs, 30 percent of the total workers were working as agricultural laborers this year.

The first Agricultural Labour Inquiry Committee classified agricultural laborers into two categories, attached laborers, and casual laborers. Bonded laborers are bound by a written or oral contract with the farmer's family. Their employment is permanent and regular. So they work on the farm whenever the owner requires their services. They are often not free to work elsewhere. The category of temporary agricultural laborers includes all other laborers other than bonded agricultural laborers. This works for any farmer. They are free and they are paid wages usually daily.

Literature Review:

1) **G. Parthasarathy(1988)** has estimated that in 1984-85 the daily monetary wage in states other than Punjab, Haryana, and Kerala ranged between Rs 6 and Rs 11, as against a monetary rate of Rs 22 per day to achieve the minimum standard. It is clear from this that agricultural laborers are leading a life of extreme poverty.

2) **A.V. Jose(1988)** has studied the wage rates in agriculture and he concludes that real wages either remained stable or declined in most of these years in many states. In some states, real wages did increase due to an increase in production, but this increase was for a short time and no state was able to increase wages continuously.

3) **R. Radhakrishna(2002)** while discussing the plight of migrant laborers working from one state to other states that the time, they spend in their village keeps them alive till the next recruiting season. And as long as they are employed in migrant work, that work keeps them alive until they return to their villages.

4) **The study by Mukesh Eswaran, Ashok Kotwal, Bharat Ramaswamy, and Wilima Wadhwa (2009)** found that average weekly wages increased by 68 percent between 1983 and 2004-05 at the all-India level. This means a growth rate of 2.5 percent per annum. The average daily wage rate increased by more than 74 percent.

5) **Himanshu (2017)** also found in his study that the rate of increase in real wages since 2013-14 has been very low. According to him, the real wage rate of casual workers in agriculture increased at the rate of 7 percent per annum between 2007-08 and 2012-13. But after that, between 2013-14 to 2016-17, this growth rate was only 1 percent per year.

ResearchMethodology:

The research paper has depended on secondary data.

Objective of Research:

1) To know the increase in the number of agricultural laborers and the reasons for that increase.
2) To study the condition of agricultural laborers and their problems.
3) To study the measures taken by the government to improve the condition of agricultural laborers.

The Problems of Agricultural Laborers in India and the Measures Taken by the Government for their Amelioration:

Agricultural laborers in India are still the poorest and most backward class in rural areas, but now they are not victims of inhuman exploitation. But the economic exploitation of agricultural laborers continues. Still, their income level is very low and not enough to survive. Still, their consumption level is very low. In the absence of alternative employment opportunities, they still have to depend on landlords who exploit them by taking advantage of their position. The law of direct demand and supply works for agricultural laborers also. Because their number is more than their demand, they are forced to work for very low wages.

In the period between 1951 and 1991, there has been an increase of almost three times in the number of agricultural laborers. But now the situation is such that 50% of the farmers of the country want to leave agriculture. The number of farmers in India was 70 million in 1951, which remained at 119 million in 2011. Agricultural wages and family income of agricultural laborers are also very low in India. The agricultural laborers have to face the problems of unemployment and contract. They have to remain unemployed for most of the year as there is no work on the farms and alternative sources of employment are not available.

The number of child laborers in India is very high. According to various estimates, their number ranges from 1 crore 75 lakh to 4 crores 40 lakh. It is estimated that one-third of the total child labour in Asia is in India. The maximum number of child laborers is in the agriculture sector. To make the condition of the poor worse, child labour leads to a fall in wage rates. In addition, children engaged in the labour force remain uneducated, reducing their potential future income.

The houses of agricultural laborers are made of mud. In which there is a lack of protection in winter, heat, and rain. All the family and animals stay in the same house at night. Due to this the environment remains polluted. Industrial workers sometimes have to do unemployment stuff. In the factory, sometimes due to loss in the industry, sometimes due to lack of demand for the commodity, entrepreneurs close the factories. In this situation, the workers have to face permanent or temporary unemployment. During the nationwide lockdown in India, many such pictures or videos came to our notice, in which hundreds of migrant laborers were seen walking thousands of kilometres. Due to the non-availability of livelihood, shelter, and food, these laborers were forced to go back to their home states. This view highlights the vulnerability of the largely unorganized agricultural workforce in India.

In the absence of a banking system in rural areas and a due diligence process of acceptance by commercial banks, farmers prefer to take loans from non-institutional sources like moneylenders, and landlords at very high rates. In this way, due to very high rates, farmers get trapped in the vicious cycle of debt. Women agricultural workers are generally forced to do hard work and are paid less than their male counterparts.

Measures taken by the Government:

The Minimum Wages Act was passed long back in 1948 and since then the need to implement it for agriculture is constantly being felt. This means that the Act does not apply to the agriculture sector. Since independence, efforts have been made to end the evil of bonded labour as it is exploitative, inhuman, and violative of all norms of social justice. In the chapter on Fundamental Rights in the Constitution of India, it is stated that trade in human beings and forcing them to beg are prohibited and are punishable under the law. Legislation has been passed in several states to provide construction sites for houses in villages for agricultural workers. Jawahar Gram Samriddhi Yojana (JGSY) for agricultural workers, and National Food for Work Plan (NFFWP), Mahatma Gandhi Rural Employment Guarantee Act MNREGA, food for work scheme have been implemented.

The Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Laborers Development Agency (MFAL) were formed in 1970-71 to address the problems of agricultural laborers in the country. The commercial banks had not formulated their credit policies in such a way that adequate credit facilities could be made available to agriculture and rural areas. Therefore, to fulfil this objective, the establishment of rural banks was necessary for these areas. Its credit policies and credit schemes include loans to small and marginal farmers and agricultural laborers, loans to SC/ST villagers, and loan schemes to rural artisans and small businessmen.

The government made arrangements to distribute the surplus land among the landless farmers by fixing the limit of holdings. And the land obtained from the Bhoodan Gramdan movement etc. was distributed among the landless laborers. Special emphasis was given to this work in the fourth five-year plan. Agricultural labour cooperative societies have been established to provide facilities to small and marginal farmers, villagers, and laborers. Such committees take contracts for the digging of canals and ponds, construction of roads, etc. Due to this, the workers get employment opportunities. To reduce the burden of the population on agriculture, the government has given importance to the development of cottage and small-scale industries in rural areas.

Conclusion:

When the government started the land reform program, the landlords deprived the tenants of their land under the guise of self-tenure. Most of these people started working in the fields. When the population increases, people start working in agriculture if they do not get employment in other areas. This is an important reason for the increase in the number of agricultural laborers in India. Farmer entrepreneurs farming in a capitalist manner have started attracting laborers from far-off areas. In the coming years, there is a possibility that due to the development of capitalist agriculture in other areas, many of the tenants will be deprived of land and their status will be reduced to that of agricultural laborers. Agriculture-based industries should be established in rural areas, in which the people of local population can get employment with minimum training and the produce of the farmers can be consumed in it. To employ the rural unemployed in the rural areas, small and cottage industries should also be established keeping in mind the local products there.

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Digital Economy In India: Opportunities And Challenges

Dr. Shrikant Pajankar
Professor Santaji Mahavidyalaya, Nagpur

Abstract:
In an emerging technology ecosystem, India has a enormous opportunity to become the digital talent hub of the world. The Covid-19 epidemic has faster the digital transformation of enterprises, creating important opportunities for all organizations. Given the customer-centricity of the technology industry in India, the demand environment is extremely positive and many companies have announced double-digit growth in this financial year. Experts believe that by the year 2025, the demand for talent in advanced technologies such as artificial intelligence, robotics, and data science will be 20 times higher than its supply. Companies are taking a multi-pronged approach to address the talent issue, including fresh hiring to increase the supply pool, promoting re-skilling programs through online learning, engaging-talent skills for on-the-job learning placement, and providing a holistic employment experience to the employees, etc. In this research paper, the opportunities and challenges of the digital economy in India have been studied.

Keywords: Digital Economy, Technology, Digital Talent, Digital Technology, Indian Economy

Introduction: The digital economy is a fusion of digital computing and the economy and is an umbrella term that describes how traditional brick-and-mortar economic activities (production, distribution, trade) are being converted bythe World Wide Web, the Internet, and blockchain technologies. The digital economy is also known as the internet economy, web economy, crypto economy, and the new economy. As the digital economy continues to replace and expand the traditional economy, there is no clear delineation between the two integrated economy types. The digital economy arises from daily online transactions between people, organizations (businesses, educational institutions, non-profits), and distributed computing devices (servers, laptops, smartphones, etc.) enabled by the Internet, the World Wide Web, and blockchain technologies. , The digital economy is rapidly evolving into the Internet of Things (IoT), and cannot exist in its present form without the Internet. The digital economy is supported by the spread of information and communication technologies (ICT) in all business sectors to increase productivity.

The digital transformation of the economy is changing traditional notions of how businesses are structured, how consumers obtain goods and services, and how states need to adapt to new regulatory challenges. The future of work, particularly since the covid-19 epidemic, is also contributing to the digital economy. More people are now working online, and with increased online activity contributing to the global economy, the companies that support the Internet's systems are more profitable. India is known as a software powerhouse, yet the availability of electronic government services to citizens is still relatively low. The National e-Governance Plan approved in 2006 has made steady progress through mission mode projects and core ICT infrastructure, but more efforts are needed to ensure effective progress in electronics manufacturing and e-governance in the country. The Digital India vision provides impetus and progress to this initiative and will lead to inclusive growth by including electronic services, products, equipment, manufacturing, and employment opportunities. India in the 21st century will strive to meet the aspirations of its citizens where the government and its services are available at the doorsteps of citizens and contribute towards a positive impact in the long run. The Digital India program aims to harness the potential of IT to transform India into a digitally empowered society and knowledge economy.

Digital talent refers to the pool of talented personnel who are capable of adopting and using existing digital technologies. There is a need for a change in the traditional approach to talent development for India to maintain its edge in the digital age. The race to be and be seen as a 'Talent Hub' is taking shape all over the world. The United Arab Emirates, for example, has recently announced plans to introduce 'green visas', expand eligibility for 'golden visas' and attract top technology personnel to make it a preferred investment destination for technology companies. Can become a center. Many other countries, such as the UK, US, and Australia, are rethinking efforts to attract high-skill talent, including fast-tracking visas for high-risk sectors and promoting visas for highly skilled applicants. The biggest opportunity for us is to develop digital talent for the world of tomorrow. In this way, India can become the 'talent leader' of the world. The capacity available in India will be the biggest competitive advantage for the country. Businesses will go where the best capacity is available and base their investment decisions.

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

- To study the opportunities of the digital economy in India.
- To study the challenges of the digital economy in India.
- To study theimpact ofdigital transformation on the Indian Economy.

Digital Economy in India: Opportunities and Challenges:

In a digital economy, digital networking and communication infrastructure provide a global platform on which people and organizations strategize, interact, communicate, collaborate, and discover information. More recently, "digital economy" has been defined as the branch of economics that studies the circulation of "zero marginal cost intangible goods" over the Internet. A cashless society describes an economic situation in which transactions are no longer conducted through a medium. Do not use physical currency (such as banknotes and coins) as Transactions that were historically done with cash are now often done electronically. It has become a topic of increasing interest in today's society as digital or virtual currencies become more common for transactions. It is also an important part of the digital economy. One country that is moving towards achieving this idea of a cashless society is El Salvador, which became the first country to adopt bitcoin. Bitcoin is a cryptocurrency that exists only digitally as a legal tender in the country. When it came to technical issues in the rollout, El Salvador's President NaidBukele, a supporter, said it would generate investment interest in the country, as well as provide access to the roughly 70% of citizens who do not have access to "traditional financial services". . The impact of increased energy use from mining bitcoin on carbon emissions in El Salvador has yet to be seen.

In the era of the digital economy, we can term data the currency of the 21st century. Many apps have no source of income, but their only profit is data. This Internet-based business model is called Surveillance Capitalism, where all social media apps and other such platforms collect money from users, use their data, and get income from it. Companies like Google, Facebook, and Amazon have built their empires through the data economy.

The Digital India program of the Government of India has promoted financial inclusion as well as the use of digital infrastructure. The plan to provide nationwide access to digital infrastructure including high-speed WiFi has given a boost to the digital economy in India. One of the notable reforms under the Digital India program is the Government e-Marketplace, a portal for government procurement, where MSMEs are facilitated to participate in procurement activities. The second phase of the digital economy is the growth of electronic and mobile commerce in India. The technologically savvy young generation finds online shopping to be the easiest way to purchase items. This has led to the expansion of e-commerce and m-commerce in the country. The amount of data increases at each level in the digital economy. Our economy is going through a phase of understanding and analyzing such data. Keeping this in view, the Government of India has launched its own open data portal where data is available for analysis. Given the ever-increasing volume and strategic importance of data for the digital economy, the government is helping to provide training and research in the area of data analytics.

Opportunities of Digital Economy:

Foreign investment in the digital sector is increasing in India. There are many reasons behind the increase in foreign investment in the digital sector. Issues related to online education in Poornbandi, increasing work-from-home culture, an increasing number of internet users, digitization of government services under Digital India, direct payment to beneficiaries in Jan Dhan accounts, per capita data consumption, and several mobile broadband subscribers in India have progressed rapidly. Sectors such as the digital payments industry, e-commerce, and digital marketing have grown rapidly under the digital economy. The acceptance of digital payments has started increasing in the country. The Reserve Bank of India's efforts to promote transactions through other means instead of cash in the economy has started showing results. People in India are preferring to buy online to avoid overcrowding. Bernstein Research's report states that the rapid digital turn people have taken in India during the Corona period has become economically useful for India. It is estimated that by the year 2027-28, the business of e-commerce in India will cross two hundred billion dollars. The biggest advantage of the rapid growth of e-commerce and the digital economy is that Digital Service Tax (DST) is becoming a new source of government revenue. As the digital economy picks up, DST will also increase.

There is a need to take advantage of the employment opportunities that are being created for the new generation of the country amid the digital economy. Good online education has become the need of the hour today. According to the National Association of Software and Services Companies (NASSCOM), India is completely in a position of advantage in the digital economy. But in the post-corona world, the existing IT talent will have to be re-skilled with new technologies. Recently, increasing digitization in the country on the one hand and the other hand in the new education policy, the way a lot of emphasis has been laid on the skill development of the new era of the digital world, its effective implementation will increase the employment opportunities in the digital economy in the country. The new generation of the country will explore the hidden opportunities in the digital economy and prepare itself according to the new needs of the country and the world.

Recently, the government told the Lok Sabha that in the last eight years, 22.05 crore people applied for various central government jobs, and out of these 7.22 lakh people got jobs. Crores of people can't get government jobs, but it is possible in the new digital economy. According to the report of the world-renowned McKinsey Global Institute, by 2025, the new generation of India can get about 65 million jobs in the digital economy. There will be many such jobs in these, which we are not familiar with. However, for this, some things have to be taken care of. More employment opportunities will have to be increased through various schemes and programs for employment and self-employment being run by the government. Crores of youth will have to be prepared for new jobs in the digital economy including manufacturing with new skill training. Favorable employment opportunities abroad have to be tapped and employment in this sector has to be increased by ensuring working conditions and social security for temporary or contract workers.

Challenges of Digital Economy:

A lot remains to be done in terms of mobile broadband speed to promote digitization. In the year 2020 April, in terms of mobile broadband speed, India is at 132nd position in the list of 149 countries. In the year 2020, India's average mobile broadband download speed was 9.81 and its average upload speed was 3.98 Mbps. To promote the digital economy in India, digital literacy has to be increased in rural areas. India has entered the era of a digital economy, but still, this new form of economy has not caught pace as expected. The major reason for this is the obstacles coming its way to give a boost to the digital economy. Unless these are addressed, it will not be possible to fully embrace the digital economy. For this, the first and foremost step would be to make the country, especially the rural areas, digitally literate and also to lay a network of basic facilities required for digitization. Obviously, for this, first of all, there has to be adequate access to electricity in rural areas. Unless there is no electricity in every village of the country, how will internet access be possible?

A two percent digital tax has been imposed on the trade and services of foreign digital companies with an annual turnover of more than two crore rupees in India. The purview of this tax includes e-commerce companies from all countries of the world operating in India. The move to levy digital tax is the sovereign right of India.

Conclusion:

By easing digital payment flows, India can provide an opportunity to not only bridge its digital financial services gap but also formalize the transaction medium for cross-border payments. However, government-to-people and digital payments face many challenges in developing countries. Most of the merchants and their customers found cash payment more convenient than digital mode. This is because of power outages, slow internet, and difficulty in using point-of-sale (card swap

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machine) terminals. Thus, frequent digital payments to ensure digital financial inclusion can be effective only if it is accompanied by improvements in many other things such as digital infrastructure, connectivity, digital skills, and financial consumer protection. With the growth of the digital economy and digital financial services comes an increase in the risks associated with new digital technologies. The Global Partnership for Financial Inclusion (GPFI) has explained that risks associated with digital technologies can be found across all digital financial services and market value chains.

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Review on electrolyte materials for IT-SOFC perspective

S. C. Gedam , S. R. Choubey , P. R. Kautkar
[1] Department of Physics, K. Z. S. Science College, Kalmeshwar, Nagpur, India
[2]Department of Physics, V.M.V.College , Nagpur, 440033, India.
Email Id: Sureshkumar.choubey@gmail.com

Abstract. The countless attempts have been focused on growing significance in intermediate temperature solid oxide fuel cells (IT-SOFCs) technology among the researchers a promising power generation with high energy efficiency, fuel flexibility, and low environmental impact evaluated to conventional power generation systems. In SOFCs, it consists of stacked layer of cathode, anode and electrolyte in single cell component. Many studies showing and reported the best cathode and anode materials,out of these two electrodes; electrolyte material is most fundamental heart of the SOFCs. The improvement of the dense ceramic electrolyte oxy-ion conductivityat intermediate temperature range in array to have a feasible operating temperature of solid oxide fuel cell (SOFC) and these O^{2-} ionsfill up the gap between the electrodes material.Every attempt is aimed towards the formation of defect-rich structure so as to get either ion or vacancy movement, which, in turn, proposes more ionic conductivity. In this review, the article presents; overviewof the electrolyte materials for the development of SOFCs.

1. INTRODUCTION:

Solid oxide fuel cell is promising as non-conventional high efficient static power generator alternatives to solid-state batteries, it is most favorable power generation possess with adequate electrical efficiency for automobiles and household devices **[1-3]**. The main hurdle of its accessibility and commerciality is high operating temperature. The electrolyte of SOFCs is exclusively accountable to decide the operating temperature; as oxy-ion conducting temperature decide operating temperature of SOFCs. Research and development of electrolytes have the potential to diminish the operating temperature from 700 to 400°C, referred IT-SOFCs (IT-Intermediate temperature) and below 400°C named as LT-SOFCs (LT-Low temperature). Doped ceria system has shown prospectively to be used as electrolytes for IT-SOFCs. Size valence of dopant is found critical in tailoring oxy-ion conductivity temperature.

Characteristically, SOFCs can be considered to operate in one of three temperature regimes depending on the conductivity of the electrolyte, such as 900-1000°C, 700-900°C or 400-700°C. Yttriastabilised zirconia (YSZ) could be considered as an electrolyte achieving an ionic conductivity of 0.1 S cm^{-1} at 900-1000°C **[4]**. Nevertheless, this system has one major disadvantage, high operational temperature (~850-1000°C). The high operating temperature increases maneuver and fabrication cost of SOFCs and obstructs their practical application in promptly developing areas, such as in portable power and automobile power device applications. At high operating temperature, few or limited materials can be functioned effectively as electrolytes or electrodes but cell degradation is the critical issue. High operating temperature demands (i)time consumption for heating up to operating temperature (ii) pricey materials for the fuel cell interconnect and insulation.As a result, for commercialization of SOFCs, there is a need to reduce the operational temperature below 850°C **[5]**.

Therefore, the fuel cell that gives a reasonable power output at intermediate temperature (400-700°C) (IT-SOFCs) and low temperature (>400°C) (LT-SOFCs) is highly desirable. The rational selection of materials can be significantly expanded, and the consistency of cell components, such as sealants, interconnectors, and gas tubes make it feasible to develop IT-SOFCs and LT-SOFCs **[6-8]**. In this area, selected progresses have also been expressed in the basic and fundamental understanding of mechanisms of the electrochemical reactions and their kinetics involved in the electrodes along with the moving or hopping mechanisms of different ions in the electrolyte materials **[9-11].** An ideal SOFCs electrolyte should have the following characteristics: 1. Low electronic conductivity 2. High ionic conductivity 3.Easy conduction between inter-granular and intra-granular boundaries4.Good thermal and chemical stability relative to the reactant environment and the Contacting electrode materials 5. Robustly matched thermal expansion coefficient (TEC) between the electrodes and interconnects 6. Highly dense to boost the conductivity 7.Low cost 8.Environmental friendly**[12]**.In this work, different sort of electrolyte materials, their properties and issues for solid oxide fuel cells will be discussed.

2. ELECTROLYTE MATERIALS:

1) Yttria-stabilized zirconia (YSZ)

The most often solid electrolyte material used in solid oxide fuel cells is yttria-stabilized zirconia (YSZ). In conductive cubic fluorite phase yttria is added to stabilize and increase the concentration of oxygen vacancies as a result increases the ionic conductivity. It shows that **[13-15]** addition of yttria up to 8 mole%, dramatically the conductivity of YSZ increases then decreases. The decrease at higher dopant contents is caused by association of point defects, which leads to a reduction in defect mobility and therefore conductivity decreases.Less broadly used dopant for Zirconia is Scandia, which has shown a higher conductivity than YSZ. The temperature dependences of the conductivities of YSZ and scandia-stabilized zirconia (ScSZ) **[13, 15, 16-19]**show that the conductivity of ScSZ is higher than that of YSZ in the temperatures of interest for SOFCs.The higher conductivity of ScSZ is ascribed to the smaller mismatch in size between Zr^{4+} and Sc^{3+}, as contrasted to that between $Zr^{4+}$and Y^{3+}, leading to a smaller energy for defect association, which enhances mobility **[20]** but issue with ScSZ is that for higher scandia contents, the cubic phase converted in to a rhombohedral phase at lower temperatures and the rhombohedral phase has a lower conductivity so that, there is a decrease in conductivity at higher content of Scandia.

2) $La_{1-x}Sr_xGa_{1-y}Mg_yO_3$ (LSGM)

In base perovskite material of $LaGaO_3$; Mn and Sr dopedto form $La_{1-x}Sr_xGa_{1-y}Mg_yO_3$ (LSGM) which is a capable to create oxygen vacancies consequentlyincreased the ionic conductivity at low operating temperatures.LSGM material demonstrates the improved properties at low oxygen partial pressures in comparison to CGO whereas its ionic conductivity is to a great extent of ScSZ and YSZ **[21]**. Anotherapproach to increasing the conductivity of LSGM is to add transition metal dopants, such as cobalt and iron **[22,23]**. It illustrates that both dopants enhance the conductivity, particularly at low temperatures, among cobalt being more efficient than iron. Though, the cobalt concentration is increased in LSGM from 0.05 to 0.10, there is a noteworthy increase in hole conductivity with very little change in ionic conductivity. Therefore, the most favorable addition of dopant depends on a balance between increasing dopant level and dropping leakage current by decreasing dopant level.Nevertheless, limitations on the processing conditions can be a problem for LSGM, for the reason that formation of a single-phase perovskite structure can be complicated, so one of the challenges for LSGM electrolytes is the improvement of cost-effective processes for fabricating the preferred single-phase microstructures.

3) Doped Ceria

Cerium-based systems are promising as an electrolyte for IT-SOFCs application because of lower activation energy with good ionic conduction at lower operating temperature (~500^{o}C). Doped ceria systems have exhibited high ionic conductivity at a much lower temperature than YSZ because an ionic radius of cerium is greater than zirconium. Recent research activities are mainly paying attention on to formulate methodologies to improve the ionic conductivity of cerium oxide-based electrolyte at intermediate temperatures**[24]**.

Ceria doped with alkaline earth oxides such as CaO**[14, 15][25,26]** and SrO**[27,28]** has been extensively studied. The electrical conductivity of CaO and SrO-doped ceria is much higher than that of undoped ceria. The highest conductivity was found in the composition $Ce_{0.90}Ca_{0.10}O_{1.90}$ by Shing et al. **[29]** that is ~10^{-3} S cm^{-1} at 600^{o}C. Yamashita et al. **[30]** found that the composition $Ce_{0.90}Ca_{0.10}O_{1.90}$ has the highest conductivity ~10^{-2} S cm^{-1} at 600 °C. The large variation in composition for attaining highest conductivity has been reported. This might be due to changes in the purity of raw materials as well as in processing conditions.As compared to zirconia, ceria has a higher conductivity, particularly at low temperatures, and a lower polarization resistance **[31]**.

The Trivalent (Sm, Gd, Dy, Smetc) doped ceria has been revealed higher ionic conductivity at relatively lower temperatures (500-800^{o}C) as compared to that of YSZ and has been studied as most promising electrolyte materials for IT-SOFCs. It reported that La-doped cerium oxide ($Ce_{0.74}La_{0.26}O_{1.87}$) electrolyte exhibited ionic conductivity 10 times larger than that of calcium-doped zirconium oxide ($Zr_{0.858}Ca_{0.142}O_{1.858}$) at 700°C for an electrolyte thickness of 1 mm**[32]**. The widely used trivalent dopant in ceria is Gd^{3+}, Sm^{3+} which shows high ionic conductivity because the small ionic radii difference between the Gd^{3+}, Sm^{3+} dopants, and Ce^{4+} , that results in lower stress and reduced activation energy for conduction of oxygen ions **[33]**. Nonetheless, there are some contradictions in the literature concerning which of the two is better. Few reports show that GDC has higher ionic conductivity, whereas the reverse results are reported in the literature **[34-36]**. This disagreement probably results from divergence in sample preparation. The structural, optical and electrical properties of ceria have been found to be dominantly influenced by size, valence, and content of dopant **[37-40]**.So far, some co-doped ceria-based electrolytes have been studied, such as Gd-La **[41]**, Gd-Nd**[42]**, Sm-Nd**[43,44]**, Gd-Sm**[45,46]**, Sm-Dy**[47]**, Gd-Y **[48,49]**, Gd-Pr**[50]** and others**[51,52]**.

The ionic conductivities of Gd and Sm co-doped ceria samples have been reported higher than those of the singly doped in the temperature range 400-700°C **[46]**. For the samples of $Ce_{0.85}Gd_{0.15-x}Sm_xO_{1.925}$ (x = 0.05 to 0.1), higher ionic conductivity was observed in co-doped samples than those of the singly doped ceria at 500-700°C. The electrical conductivity of the Sm and Dyco-doped ceria system studied by K. Park have reported the highest conductivity of 5.3 x 10^{-2} S/cm at 800°C **[53]**.

3. CONCLUSION:

SOFCs have been studied across globally because of the fuel flexibility and tangible power production devices with low environmental impact. In this review article, to summarizedifferent sort of electrolytes and their properties impacted on the performance of SOFCs. The most commonly used YSZ found less ionic conductivity than LSGM. But LSGM is a less stable with anode material and most difficult to prepare than YSZ. Ceria has the highest conductivity and the best stability with cathode materials, but suffers from stability in low oxygen partial pressures. Co-doped ceria gives a great attention to the researcher to overcome reported issues of intermediate temperature ranges at 500-700°C.

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Synthesis and Characterization of Bis (8 Hydroxyquinoline)Zn-Metal complex for Application in OLED devices

S. C. Gedam, S.R. Choubey, N. B. Khotele
[1] Department of Physics, K. Z. S. Science College, Kalmeshwar, Nagpur, India
[2]Department of Physics VMV Comm. JMT Arts , JJP Sci. College, Wardhman Nagar Nagpur.
Email Id: gedam_sc@rediffmail.com

Abstract:

In present attempt, 8-hydroxyquinoline Metal complex (Mq_2: Where M = Zn) were synthesized by precipitation method. FT-IR spectra confirmed the molecular structures of polymeric compound. It attributes Znq2 metal complex is nearly same to spectra of Alq_3, while metal stretching vibrations are different for different metal derivative. The photoluminescence spectra of Znq_2 metal complex depicts green color emission having λ_{ems} = 502 nm. The CIE co-ordinates for Znq_2 complex was found to be (0.1805, 0.5026) and showing CCT at 9644 K. The tunability of light emitting 8-hydroxyquinoline derivative metals applicable for the fabrication of OLED devices, displays as well as in other optoelectronic applications.

Keywords: OLEDs, Structure, PL, FTIR, Color co-ordinate Temperature.

1. Introduction:

Organic Light Emitting Diodes have been immensely developed due to their applications in various displays based on small molecule organic materials since reported by Tang and Van Slyke in 1987 [1-6]. Now design and synthesis of metal complexes have attracted intensive research interest because of displaying a double role of electron transport and light emission, higher environmental stability, and a much greater diversity of tunable electronic properties by virtue of the coordinated metal centre and the ligands. In general, both main group metals and transition metals can be used as the metal centres of the complexes in numerous OLED materials[7-10]. 8- Hydroxyquinoline was originally used as a gravimetric reagent to analyse the concentration of metal ions owing to its excellent coordinating abilities [11]. Because of the intense luminescence and good stabilities of the resultant complexes such as aluminium tris(8-hydroxyquinolinate) and zinc bis (8-hydroxyquinolinate), they are incorporated in OLED devices as emissive layers [12-14]. For the full-colour display, red, green, and blue emitting materials are essential to apply in OLED devices. Therefore, the development of materials that emit green light with a pure colour and high efficiency is still required. Although numerous molecules have been designed and synthesized as the green emitting materials [15-18] the metal complexes were rarely reported because of the large conjugation in the molecule and the low energy in the triplet excited state. In this study, we report the design, synthesis, characterization and crystal structure of a new zinc complex with 8- Hydroxyquinoline.

2. Experimental

2.1 Reagent and Solvents

a)8-hydroxyquinoline, [$C_{27}H_{18}AlN_3O_3$] (Aldrich Chemicals) FW=145.16, m.p. =192 to 194^{0}C.

b) Zinc Nitrate, [$Zn(NO_3)_2$](Aldrich Chemicals) FW= 189.36, m.p. = 110^{0}C, b.p. =125^{0}C.

c)Acetic acid, [CH_3COOH] (Alfa Aesar Chemicals) FW=60.05, m.p. = 16 to 17^{0}C, b.p. =118 to 119^{0}C

d) Ammonia solution, [NH_4OH] (Aldrich Chemicals) FW=35.04, m.p. = -91.5^{0}C, b.p. =24.7^0 C

2.2 Double distilled water.

Synthesis of Znq_2 Complex:

Znq_2 has been synthesized by simple precipitation method at room temperature according to literature method. Initially 25 ml of double distilled water and 25ml of acetic acid were taken in a beaker. Later, 5gm of 8-hydroxyquonolin is dissolved in a mixture of double distilled water, acetic acid and stirred till orange transparent solution was obtained (solution-I). Then, 5.122 gm of [$Zn(NO_3)_2$] was dissolved in double distilled water and stirred till clear solution (Solution-II). Later, solution I and II are mixed well with vigorous stirring for 10 min. NH4OH solution is then added

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drop by drop to this mixture of solution with continuous stirring till precipitate is obtained. The precipitate was found to be yellowish green with good yield. It was then washed with double distilled water for 8 to 10 times and dried at 40-50^{0}C for 45 minutes in hot air oven. This reactionof synthesis is detailed inFig 2.1.

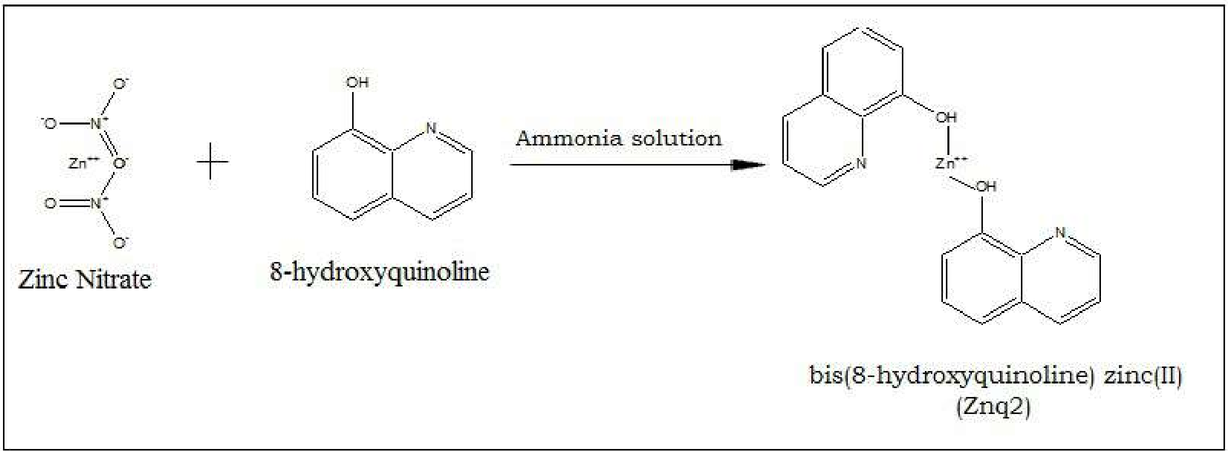

Figure 2.1: Synthesis reaction of Znq_2 complex

2.3 Structure of Znq2 complex

The molecular structure of Znq_2 complex is as shown in Figure 2.2.

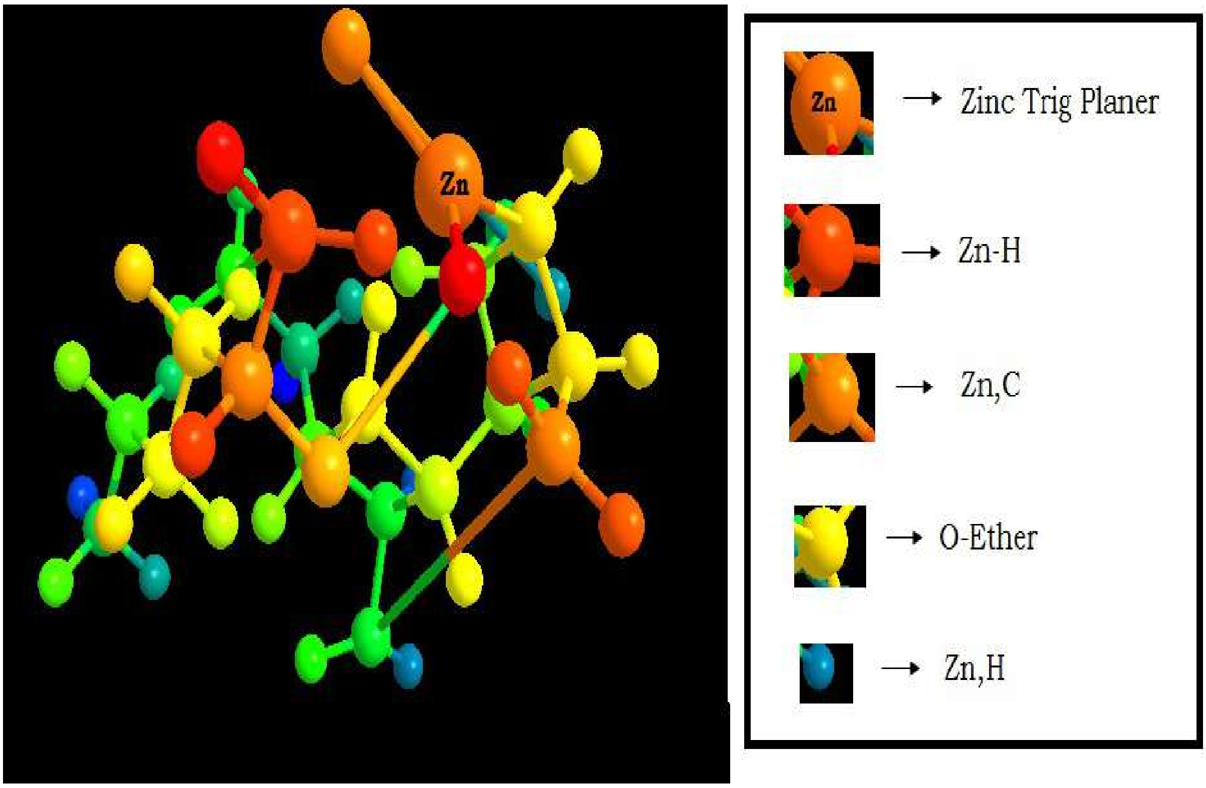

Fig 2.2:Structure of Znq_2 complex

3. Result and Discussion:

3.1 Structural Properties:

3.1.1: Fourier Transform Infrared Spectroscopy (FT-IR)

Fourier Transform Infrared Spectroscopy (FT-IR) is an analytical technique used to identify organic materials and it can determine the quality or consistency of a sample. In Infrared (IR) spectroscopy, IR radiation is passed through a sample. Some of the infrared radiation is absorbed by the sample and some of it is passed through (transmitted). The resulting spectrum represents the molecular absorption and transmission, creating a molecular fingerprint of the sample. Like a fingerprint no two molecular structures produced the same infrared spectrum. The molecular structures of polymeric compound are confirmed by FT-IR spectra. FTIR analysis of the material as done with a KBr pellet using a Nicolet 5700 spectrometer.

3.1.1.1: FTIR Spectra of Znq$_2$ Complex

The FTIR spectrum of Znq$_2$ complex was recorded in the range of 4000–400cm^{-1} employing a FTIR spectrometer and using the KBr pellet technique. The FTIR spectrum of Znq$_2$, are shown in figure 3.1. The vibrations at 1602.85, 1575.84 and 1327.03 cm^{-1} are assigned to the quinoline group of Znq$_2$. The bands at 1498.69 and 1467.83 cm^{-1} correspond to both the pyridyl and phenyl groups in Znq$_2$. The peaks at 742 and 642 cm^{-1} are associated with in-plane ring deformation [19-21]. The absorption peaks at 2852 and 2923 cm-1 correspond to the stretching modes of methylene groups present in Znq$_2$.

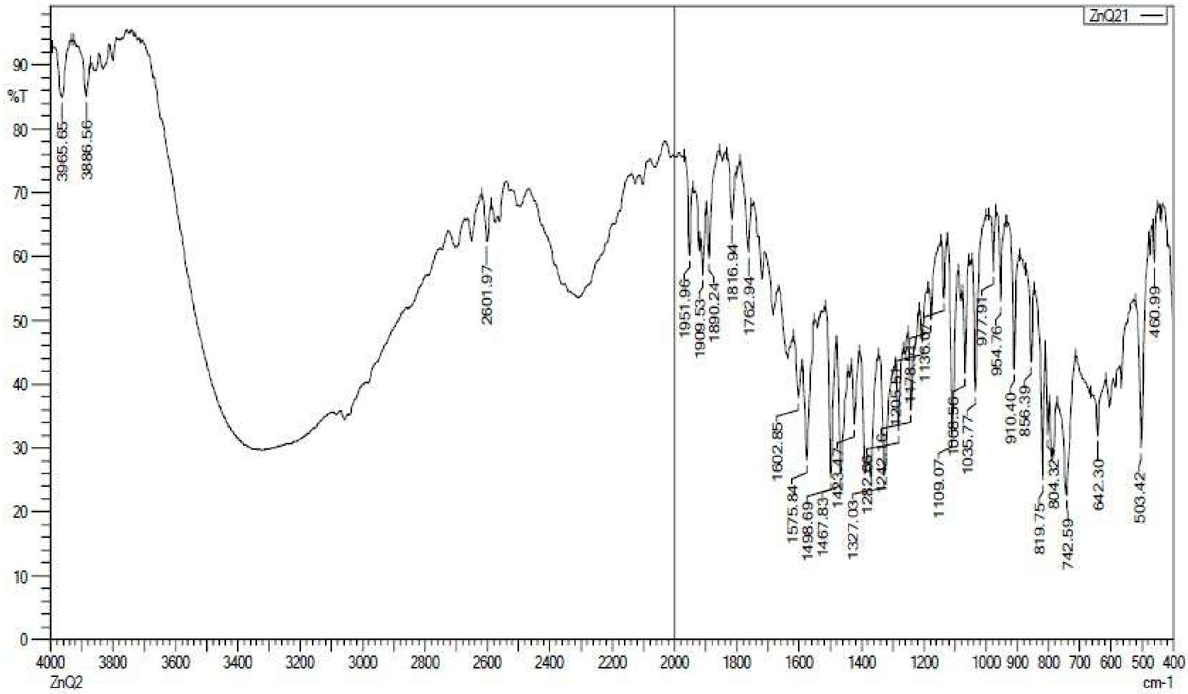

Figure 3.1: FTIR Spectra of Znq$_2$ Complex

3.2 Optical Properties:

3.2.1 Photoluminescence Spectra (PL)

The investigation of the photoluminescence excitation (PLE) spectra show any excitation photon energy, in the spectral range extending from the electronic transition band, contributes to the photoluminescence. This behaviour is due to fast non-radiative relaxation, with subsequent radiative recombination to the ground state. This means that fast energy transfer price are at work among the various orbital states with final relaxation to the LUMO states. Figure 3.2 shows the PL spectra of Znq$_2$ crystalline powder in the range of 450 to 600 nm, monitored at 434 nm. When the powder is excited at 434 nm, it emits green light at wavelength 502 nm.

It was concluded that the lowest electronic states derive from π– π* excitations. The lowest π π* state is localized at one of the quinolinolate ligand with electronic charge being partially transferred from the peroxide to the pyridyl side of the ligand [22].

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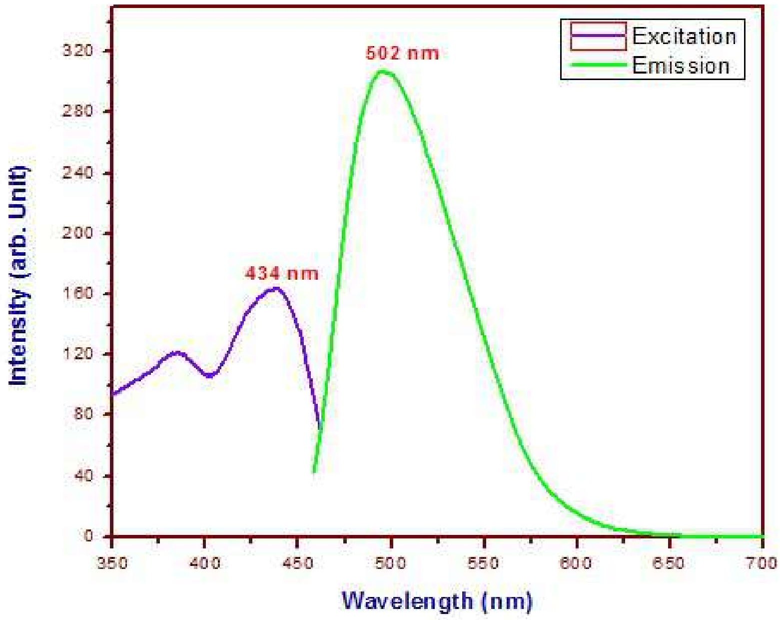

Figure 3.2: PL Spectra of Znq_2 Complex

3.2.2 Color co-ordinate:

The color of the phosphorescence is represented by Color coordinates which could be calculated from the emission spectrum using the chromaticity coordinate calculation method based on the CIE 1931 (Commission International d'Eclairage) system. In CIE 1931, the color coordinates of the phosphor (x, y) are denoted as the color spaces, generally calculated by using Tristimulus values using the following equation-

$$x = \frac{X}{X+Y+Z} \; ; y = \frac{Y}{X+Y+Z}$$

Where, X, Y, and Z coordinates are Tristimulus values, which the measure the light intensity based on the three primary color values (RGB) as shown in Fig. 3.3.

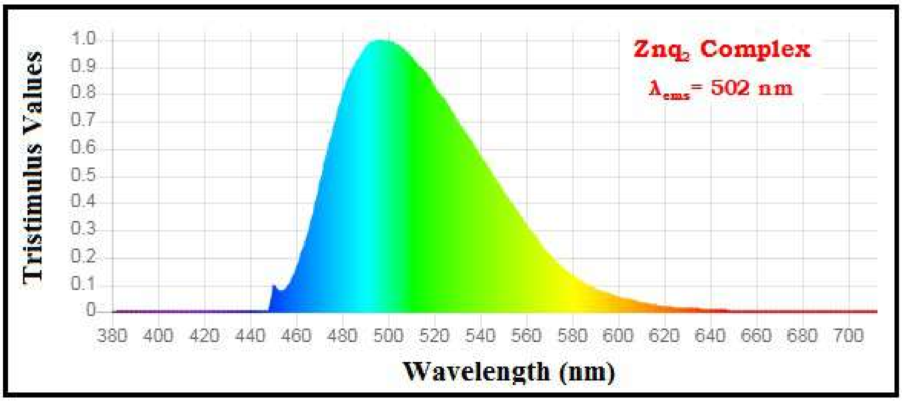

Fig.3.3: Tristimulus of Znq_2 Complex with respect to standard observer

CIE 1976 chromaticity diagram was constructed by mathematically transforming (x, y) chromaticity coordinates to (u', v'), given by

$$u' = \frac{4x}{12y-2x+3} \quad v' = \frac{9y}{12y-2x+3}$$

And in 1960 space, $u' = u \;\; and \;\; v' = \frac{3}{2}\, v$

These parameters has been calculated with the help of spectral energy distribution of chromaticity diagram using spectrophotometric method and summarized in Table 1. The CIE 1931 (x-y) chromaticity diagram of Znq_2 complex reveals that the complex have its co-ordinates at (0.1805, 0.5026), indicates their emission in greenish cyan region of emission spectra as shown in Fig. 3.4. Correlated color temperature (CCT) is a measure of light source color appearance defined by the proximity of the light source's chromaticity coordinates to the blackbody locus, as a single number rather than the two required specifying a chromaticity

S.N.	Name of Complex	X	Y	Z	x	y	u	u'	v	v'	CCT (K)
1.	Znq_2 Complex	14.61	14.69	25.65	0.1805	0.5026	0.0833	0.0833	0.7826	0.5217	9644

. **Table 1: CIE coordinates and CCT values of Znq_2 complex**

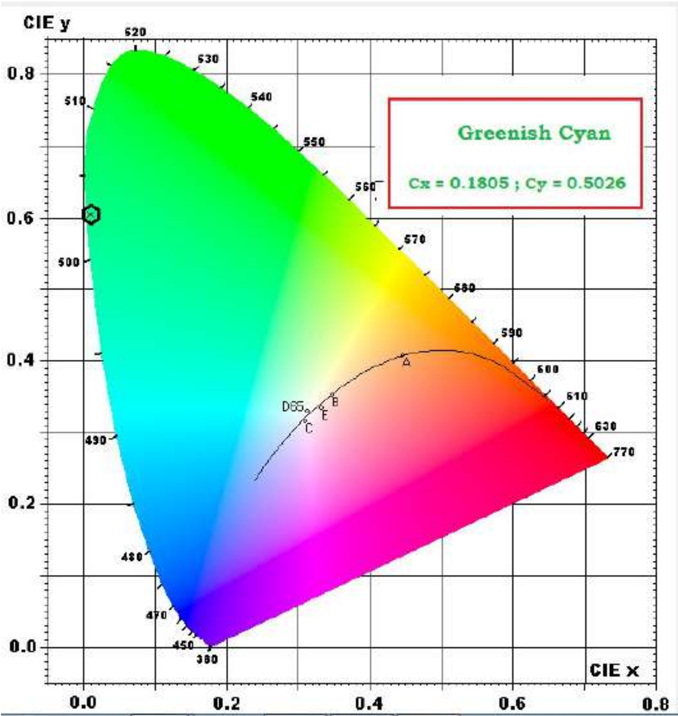

Fig.3.4: CIE chromaticity diagram for Znq_2 complex

3.3 Conclusion:

8-hydroxyquinoline Metal chelate (Mq_2: Where M = Zn) were synthesized successfully by precipitation method at room temperature. The molecular structures of polymeric compound are confirmed by FT-IR spectra. The FT-IR spectra of Znq_2 metal complex is nearly same to spectra of Alq_3, while metal stretching vibrations are different for different metal derivative. The photoluminescence spectra of Znq_2 metal complex show green color emission having λ_{ems}= 502 nm. The CIE co-ordinates for Znq_2 complex was found to be (0.1805, 0.5026) and showing CCT at 9644 K. The tunability of light emitting 8-hydroxyquinoline derivative metals applicable for the fabrication of OLED devices, displays as well as in other optoelectronic applications where green light is essential.

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Affordable and clean Energy

Ms. Geeta Shobhanath Mishra
Research Scholar- RTMNU Research Center PGTD Department of Economics.
Mobile number: 9422507661 ,Email-id : shags.1998@gmail.com

Abstract

The Economic development that we have achieved so far has come at a very heavy price at the cost of environmental quality. Today is the era of globalization which promises higher economic growth, but we have to bear in mind the adverse impact of the past developmental path on our environment and consciously choose a path of sustainable development.Fulfilling our needs at the cost of non-renewable energy like fossil fuels has reflected its irreversible impact on the environment. The impact of greenhouse gases is disastrous which is evident on Climate change;moreover, the release of greenhouse gases affects the world at largewithout demarking the National boundary. It is a fact that Energy consumption at the global level is on all time high. Consequently, without a stable supply of clean and affordable energy Economic growth at the pace that we need might look an impossible mission unless we adopt sustainable strategies.

Thus we need to identify and invest in technology which produces clean energy which ensures affordability and accessibility of energy to the people at large.

Introduction

Sustainable development has become a catch phrase today. It is definitely a paradigm shift in development thinking. Its high time we realize the fact that adherence to this path will ensure lasting development and non-declining welfare for all. Sustainable development aims at minimizing environmental problems and meets the present generation needs without compromising the ability of the future generation to meet their own need. The research focuses on dreadful impact of nonrenewable energy like fossil fuel, Oil and the strategies to achieve sustainable development.

It covers various measure adopted by the Government of India and its impact. We analyze the impact of installing renewable sources of energy like solar panels, Ethanol Electric vehicle and the policy measures adopted at the state and the Central level.

Research elaboration

Why Renewable energy[1]?

- **Sustainable:** Energy generated from renewable sources will be cleaner and greener and more sustainable.
- **Employment opportunities:** Inclusion of a newer technology simply means more employment opportunities for the working population of the country.
- **Market assurance:** From the economy point of view, renewable sources provide the market and revenue assurance which no other resources can provide.
- **Power supply:** Providing 24*7 power supply to 100% of the households, sustainable form of transports are some of the goals that can only be achieved through sustainable power that comes from renewables

The environment performs some vital functions such as –It supplies resources, it assimilates waste, it sustains life and provides aesthetic services. It's truly said that the environment will be able to perform function as long as the demand is within the carrying capacity. Dreadful impact of non-renewable sources of energy is dangerous and causes respiratory diseases in humans as it emits greenhouse gases such as carbon monoxide. The workers working in coal mines or oil drills are prone to such health disease. In a nutshell its drawbacks are:

- By-products which are emitted by these sources cause immense damage to the environment.
- They cannot be replenished once they get exhausted.
- It incurs high cost o0f production
- The residual products are usually non-biodegradable.
- Most non-renewable energy sources are fossil fuels: coals,petroleumand natural gas.

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- Many resources have become extinct and the wastes generated are beyond the absorptive capacity of Environment.

Measures adopted by Government of India:

1. [2]Post the inauguration of the **3rd Global Renewable Energy Investment Meeting and Expo (RE-Invest 2020),** the PM addressed and invited the investors, developers and businesses to join India's renewable energy journey.
2. **Project Linked Incentives**: Recently, The Union Cabinet has cleared Production Linked incentive (PLI) of Rs 19,500 crore to incentivize **manufacturing of domestic solar cell modules.** This is a follow-up to the RS ,500-crore tranche that was cleared in November 2020, aiming at reducing the **industry's reliance on China-made panels.** With the second tranche of the PLI scheme the government is hoping that about 65GW per annum manufacturing capacity of fully and partially integrated, solar PV modules would be installed in the country.

Benefits:

a) This would bring in a **direct investment of around Rs 94,000 crore,**
b) Directly employ about 1,95,000 and indirectly around 7,80,000 persons.
c) It would save India close to Rs. 1.37 trillion in imports. With these schemes we expect to have 70-80 GW of capacity which would take care of our domestic requirements as well as exports.

3. Dedicated **Project Development Cells** have been established to facilitate investors ensuring **'Ease of Doing Business'.**

4. PradhanMantri- KisanUrjaSurakshaevamUtthaanMahabhiyan: PM- KUSUM aims to provide financial and water security to farmers through harnessing solar energy capacities of 25,750 MW by 2022.
Solarisation of water pumps is a step in distributing power providing at the doorstep of the consumer.

5. **COP26-** proposed a one word movement ,Life-To l;ive a lifestyle in tune with our planet and not harm it.

6. [3]**India's updated Nationally determined Contribution (NDC)** –India at the 26th session of the conference of the parties to UNFCCC held in Glasgow,UK, expressed to intensify its climate action by presenting to the world five nectar elements (Panchamrit) of India's climate action. The update is a step towards achieving India's long term goal of reaching net-zero by 2070.As per the updated NDC, India now stands committed to reduce emission intensity of its GDP by 45% by 2030,from 2005 level and achieve about 50% cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030.
The updated NDC also represents the framework for India's transition to cleaner energy for the period 2021-2030 through various programs and schemes relevant Ministries.

7. Tax concession and incentives such as production linked incentive scheme for promotion of manufacturing and adoption of renewable energy, which aims atproviding an opportunity for enhancing India's manufacturing capabilities and enhancing exports.
8. It also states that the net zero targets by 2030 by Indian Railways alone will lead to a reduction of emissions by 60 million tons annually.
9. Massive LED bulb campaign is reducing emissions by 40 million tons annually.
10. Solar Parks Development of solar parks and ultra-mega solar power projects-The scheme rolled out by Ministry of New and Renewable energy on 12th December 2014. Under the scheme it was proposed to set up at least 25 Solar Parks and ultra-mega solar power projects targeting 20,000 MW of solar power installed capacity within a span of 5 years starting from 2014-2015
11. [4]Flex fuel Ethanol: Ethanol production has good potential in India, the question arises –in an Electric vehicle (EV) future, will there be demand for internal combustion engine (ICE)-well the answer is YES. Ethanol is produced not only using cane waste, but second-gen ethanol can be produced from crop residues after a harvest and even empty fruit branches, thus it can reduce stubble burning and lower pollution.Thus the Ethanol has a long way to go to reduce the harmful emissions here it is that the Government's E-20 plan plays a part.

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With a 20% ethanol blend not only will be the country reducing its crude imports, it also means a cleaner fuel is being burned , as ethanol being plant based , has the lowest carbon emissions on a well to wheel basis.

12. Electric Vehicles (EV)- Various steps for Promotion of manufacturing and Sales of Electric Vehicles

a) -.An upfront reduction in in purchase price of the EVs under the FAME-India schemes an incentive provided to buyers of EVs.

b) The incentive subsidies linked to to the battery capacity, for e-2W are increased to Rs.15,000/KWh(US$199.56/KWh) which was previously. 10,000/KWh (US$133.04/KWh).

The various initiatives taken by the Government to promote electric vehicle in India are as follows:

- GST on the electric vehicles and the chargers/ charging stations has been reduced from 12% to 5% and from 18% to 5%, respectively.
- A notification has been released by the Ministry of Power regarding charging infrastructure standards permitting private charging at residences and offices.
- Battery operated vehicles will be given green license plates and be exempted from permit requirements, announced by the Ministry of Roads Transport and Highways(MoRTH)
- A notification advising states to waive road tax on EVs has been issued by MoRTH, leading to a reduction in the initial cost of EVs.
- Model building bylaws 2016was amended to establish charging stations and infrastructure in private and commercial buildings by the Ministry of road Transport and Highways.
- As per the vahan portal, electric vehicles registered in the country over the last two years are as follows:

Table: 1

Sr.no	Year	No. of electric vehicles
1	2019	1,61,314
2.	2020	1,19,648
Total		2,80,962

Impact[5]Table 2: Estimated contribution of renewable energy sources to the total energy demand

Year	Installed capacity of renewable energy Sources (GW)	Expected Generation (Billion Unit)					Total energy requirement (Billion Unit)	% The Contribution of renewable energy source
		Solar	Wind	Biomass	Small hydropower	Total		
2021-22	175	162	122	38	15	327	1611	20.3
2026-27	275	243	188	64	21	516	2132	24.2

Table 2: presents the estimated contribution of renewable energy sources to the total energy demand.

MoP along with CEA in its draft national electricity plan for 2016 anticipated that with 175 GW of installed capacity of renewable power by 2022, the expected electricity generation would be 327 billion units (BUs), which would contribute to 1611 BU energy requirements.

This indicates that 20.3% of the energy requirements would be fulfilled by renewable energy by 2022 and 24.2% by 2027].

Figure 1 shows the ambitious new target for the share of renewable energy in India's electricity consumption set by MoP. As per the order of revised RPO (Renewable Purchase Obligations, legal act of June 2018), the country has a target of a 21% share of renewable energy in its total electricity consumption by March 2022. In 2014, the same goal was at 15% and increased to 21% by 2018. It is India's goal to reach 40% renewable sources by 2030.

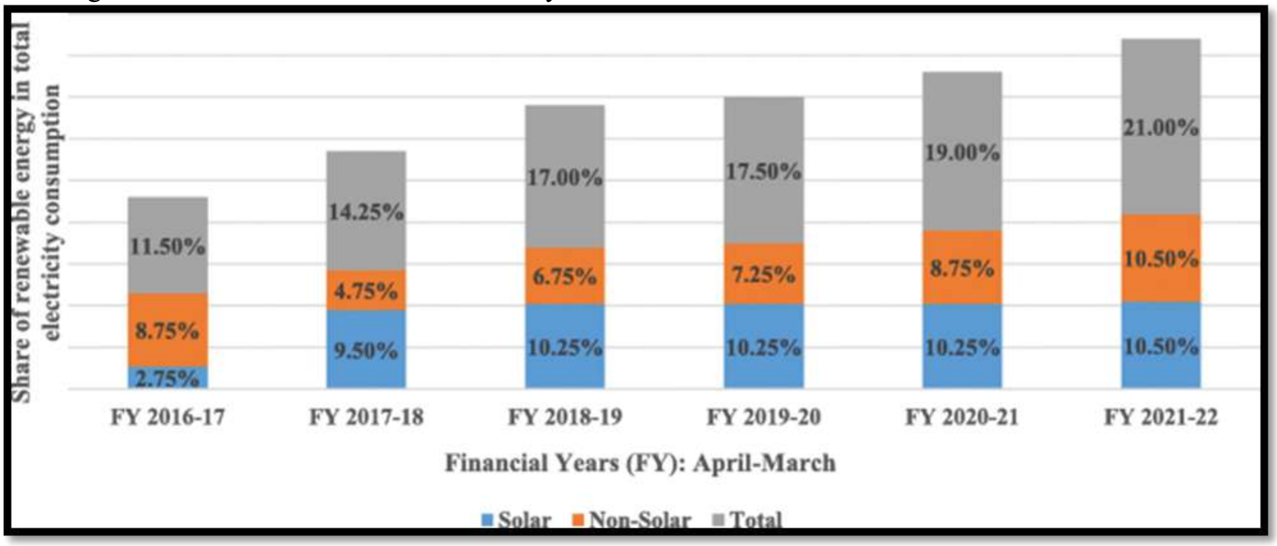

Figure 1 Target share of renewable energy in India's Power consumption

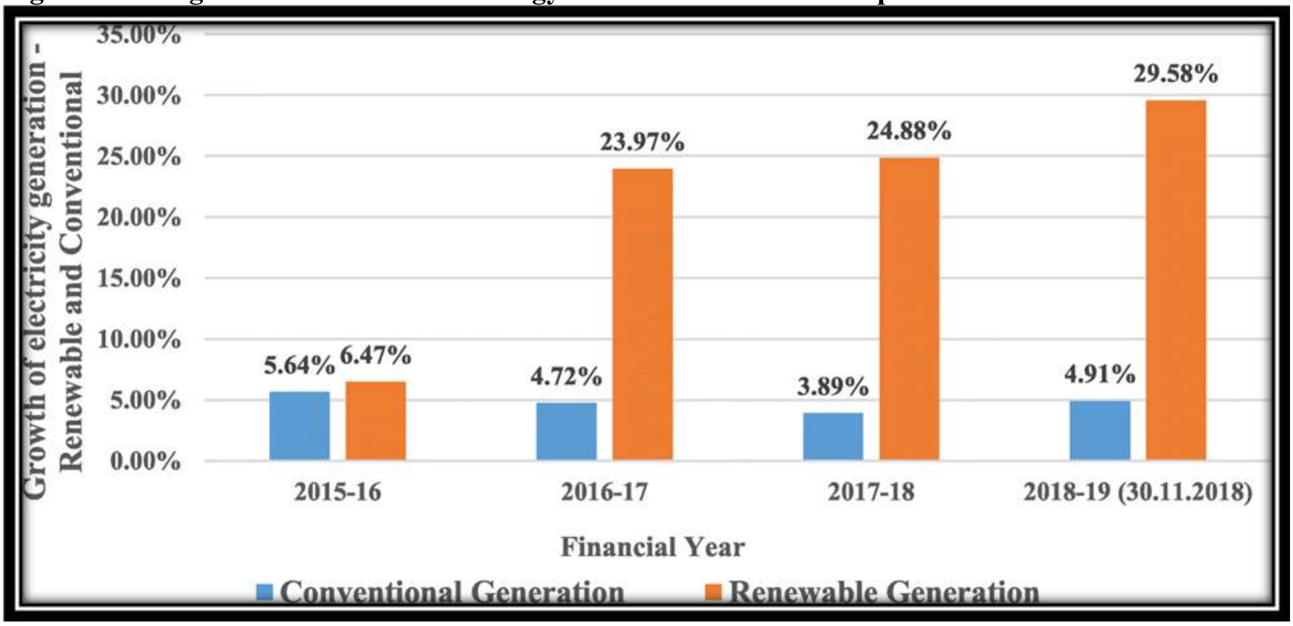

Figure 2The annual growth in power generation as per 30th November 2018.

Gross electricity generation from renewable energy in India

The overall generation (including the generation from grid-connected renewable sources) in the country has grown exponentially. Figure 2 indicates that the annual renewable power production increased faster than the conventional power production.

The rise accounted for 6.47% in 2015–2016 and 24.88% in 2017–2018, respectively.

Figure 3 shows the contribution of off-grid Solar application:

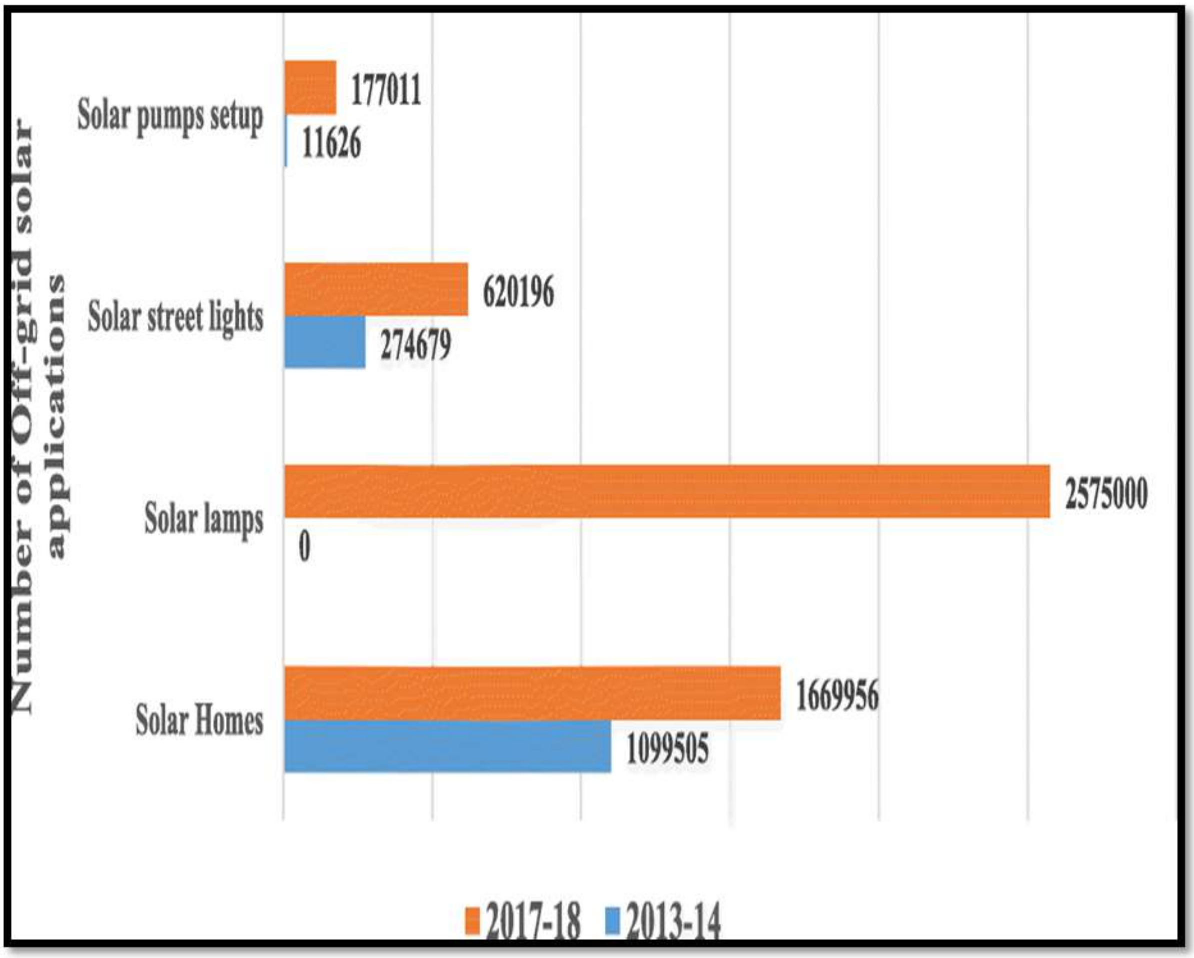

Figure 3: Off-grid solar application

Table 3: Leading FDI investments in the renewable energy sector]

The Foreign Investors contribution in India's renewable energy Journey is immense. Table -3 reflects contribution made by few countries like Philippines, Singapore, Japan, Netherlands and Germany to name a few.

Collaborating company	**Country**	**Indian company/Private limited**	**FDI equity inflow (USD mn)**
Asian Development Bank	Philippines	Renew Power Ventures	44.69
AIRRO Singapore Pte Ltd	Singapore	Diligent Power	41.07
ORIX Corporation	Japan	TADAS Wind Energy	37.75
ENEL Green Power Development B.V.	Netherlands	BLP Energy	32.61
DEG - Deutsche Investitions- und Entwicklungsgesellschaft	Germany	WELSPUN Renewables Energy	32.50
ENERK International Holdings Ltd	Seychelles	RKM POWERGEN	32.50
OSTRO Renewal Power Limited	Mauritius	OSTRO Energy	32.21
AREVA Solar Inc.	USA	AREVA Solar India	31.53

Figure-4 The Bar diagram reflects the FDI equity inflow between 2015-16 and 2018-19.

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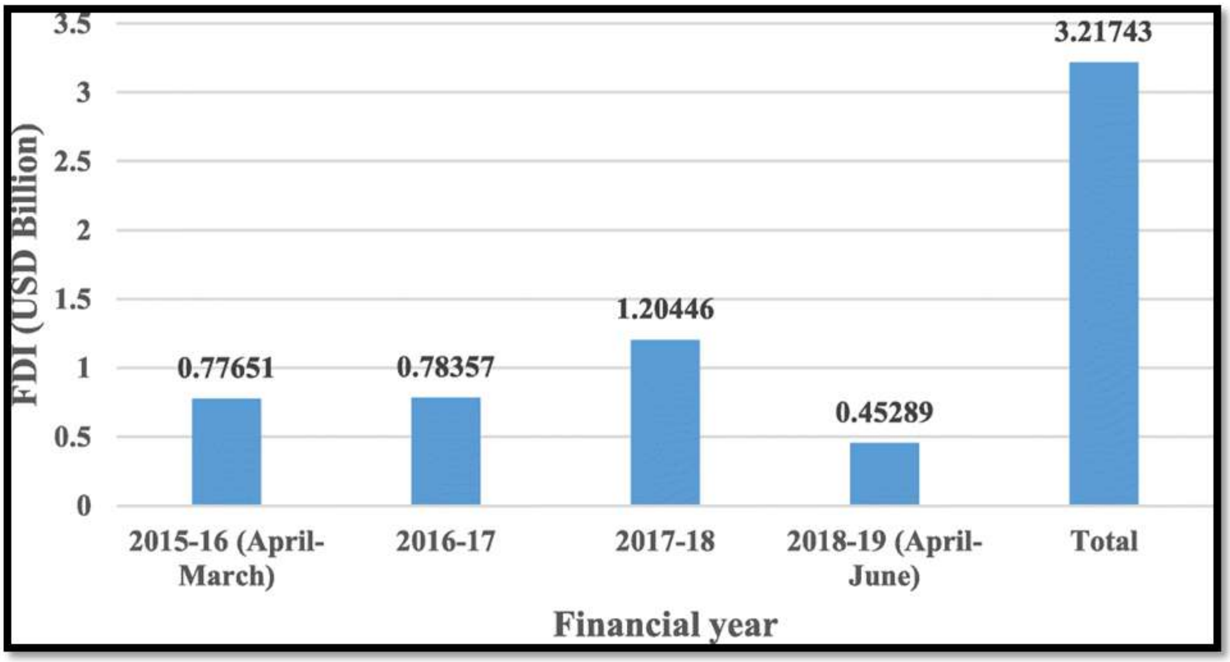

Figure 4 The FDI equity inflow receivedbetween April 2015 and June 2018 in the renewable energy sector.

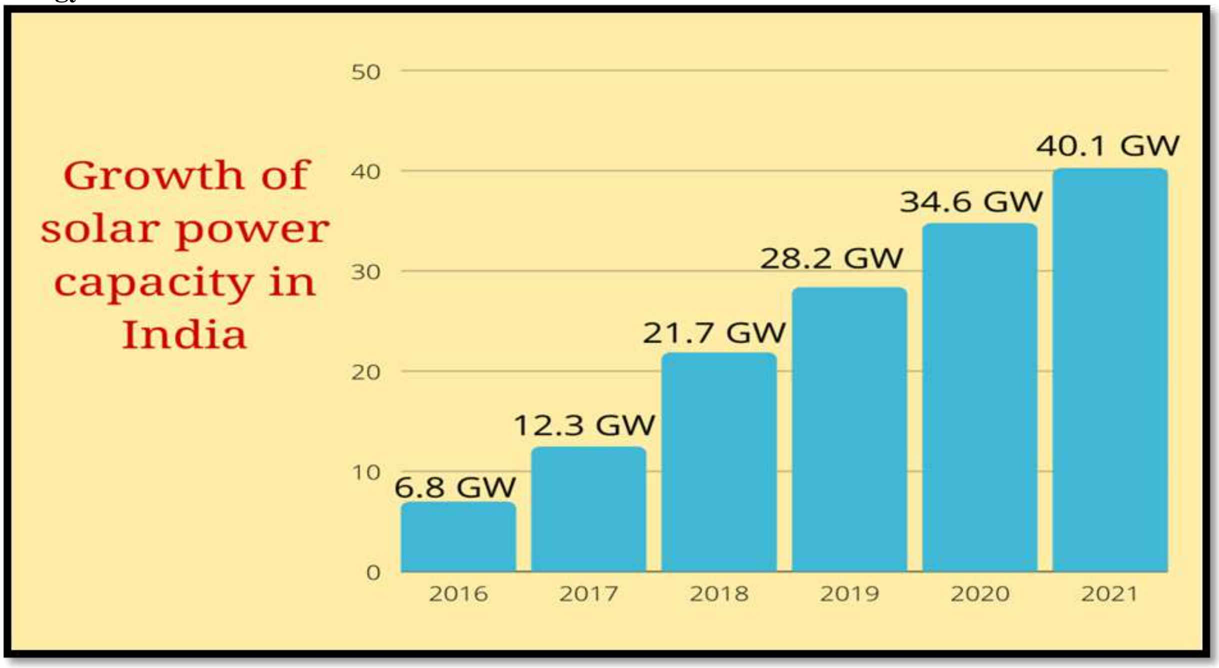

Figure 5Growth of Solar Power Capacity

[6]The solar power energy is getting stronger with each passing day. Especially with the entrance of the Electric vehicle solar power and other renewable energy sources have gained a lot of traction, The most significant advantage of solar power are its availability ,energy density, cost of energy conversion and environment friendliness.

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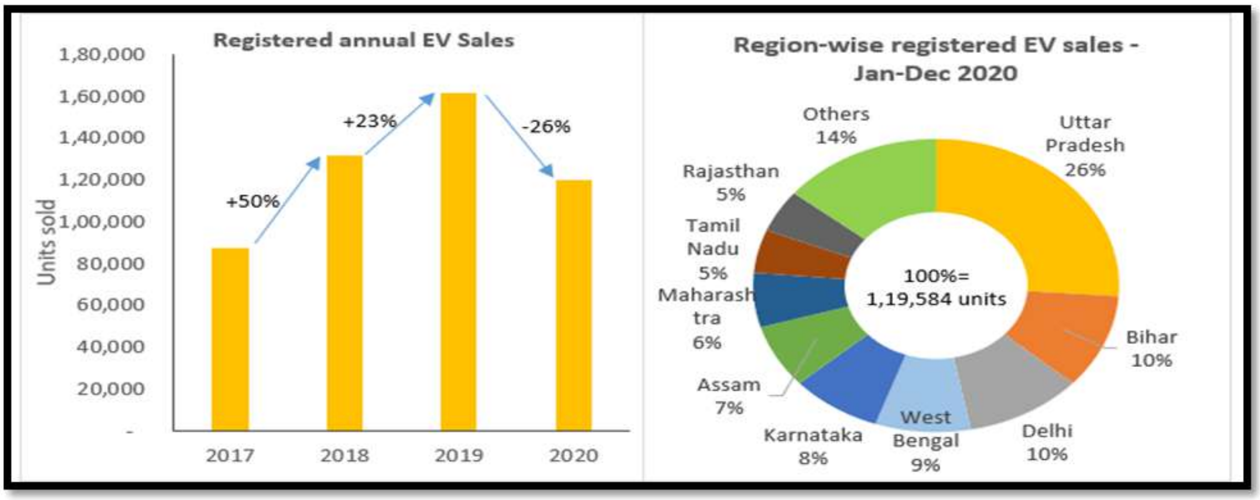

Figure 6 : Rise in the registration of EVs

[7]The emergence of Covid-19 and its consequential impacts on the business environment realigned the focus on green investment. The graph shows a fall in the year 2020 in the number of registered annual EV sales. This is on account of covid induced lockdown. However the EV sales resurged beyond May 2020 .

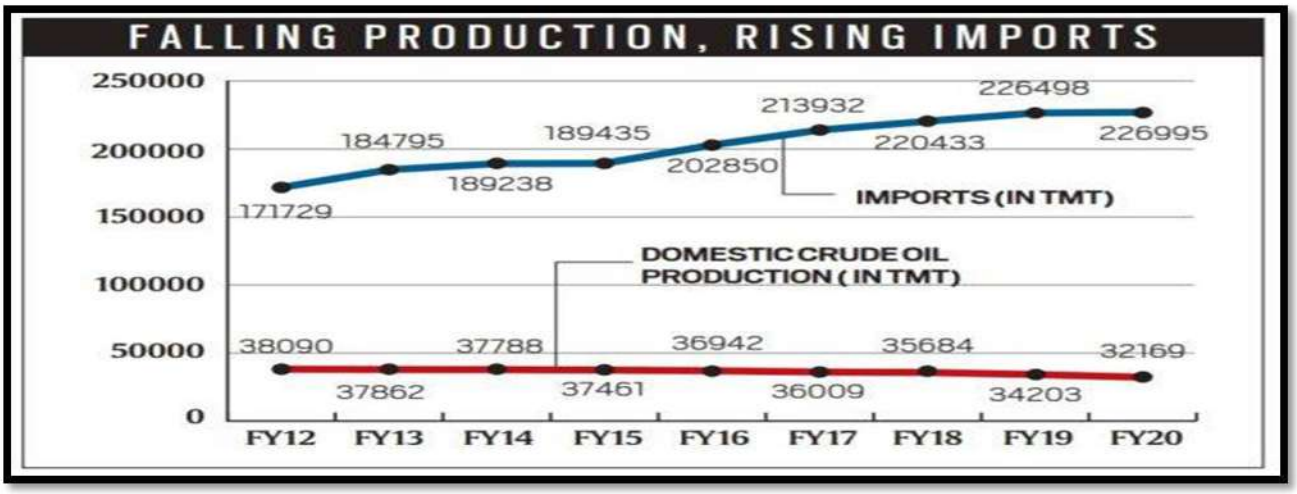

Figure 7 Increase in Import of Crude oil

CRUDE COST
India's crude oil import data

	Import bill ($ bn)	Import quantity (mt)
2019-20	101.4	227.0
2020-21	62.2	196.5
2021-22*	61.1	118.5

mt: million tonnes; *till Oct
Source: Petroleum Planning and Analysis Cell

Figure 8 India's Crude Import Data

Conclusion:

Various measures adopted by the Ministry of Environment and the Central and State pollution board will be able to yield desired results if every individual uses the resources consciously and adopt the path of sustainable development.

To achieve high level of growth and maintain India's position as the fifth largest economy of the World it is essential that we supersede other nations in production which requires import of crude oil, the burden of its payment is reflected in the Balance of Payment. It is here we can reduce our dependency on other nations by harnessing the renewable energy and using India's position as a tropical country.

Development to enhance our present life style without concerns for posterity will deplete resources which will lead to both environmental and economic crisis. Clean and Affordable energy is the most important factor in achieving sustainable growth. India will soon be the most populated country in the world superseding China, No doubt we are banking upon the young population where India would be an important source of supplying Human Resource to the world, still with rise in population demand for Energy which needs to be clean and affordable is must at the same time we need to enhance supply via non-conventional means.Environment and Economy are interdependent and need each other. Hence development that ignores its repercussions on the environment will destroy environment which sustains life. The need is sustainable development

This can only be achieved if we tap on the renewable source of energy. We need to use the available resource within our ambit like Ethanol, Solar energy, Biomass Wind energy and reduce our import of Oil .Instead we need to harness these sources and be potentialsupplier for the entire world.

Abbreviations used:

GW=Gig watt
NDC= Nationally Determined Contribution
EVs= Electric Vehicle
FAME= Faster Adoption and Manufacturing of Electric Vehicle.
MoP= Maximum overcurrent Protection
CEA=Central Electricity Authority
BU=Billion Units

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Digital Economy: Challenges And Opportunities

Mrs. Gurpreet Kaur Ghattode
gurpreetghattode@gmail.com

Ms. Shraddha Chandak
schandak57@gmail.com

Abstract

This paper canvas the various aspects of the Digital Economy (Cashless Economy) in India. The Government of India is taking the initiative to Curb black money, counterfeit fake Currency, Fight against Terrorism, Reduces dependence on Cash, and to Contribute the Economic Growth of the Country. As we know that every coin has its two sides like digital economy also have two different aspects considerable challenges as well as benefits. This paper canvas various Challenges such as Lack of Digital Literacy,Acceptance by people,Cyber Security,Unable to access Internet Services,Smartphone Adaptability, not enough Bank Accounts, Shortage of Digital Talent, etc. It also covers the benefits like Transparency, Digital delivery of Goods and Services, New Opportunities forE-Commerce, Employment Generation, Digital Advancement, 24*7 Services, Flexibility, Reduces Tax Evasion, etc

Keywords: Digital literacy, Internet, E-commerce, Employment, Cashless economy, Taxation, Cybersecurity, Digital talent, Electronic, Banking, Technology.

INTRODUCTION:Digital Economyis an initiative taken by the Government of India toward integrating Government departments and the Residents of India. It focuses onProviding Government services made available to every citizen digitally by reducing paperworki.e Documentation as well as paper currency.The digital economy is an Umbrella term related use forthe digital empowerment of the Economy. It rests on Nine Pillars that are Broadband Highways, Universal access to Mobile connectivity, Public Internet access program, e-governance-reforming governance through technology, e-Kranti- electronic delivery of services, Information for all, Electronic manufacturing, IT for jobs, and Early Harvest program. The Digital India program covers the Agricultural, Industrial, and Service sector which contributes to the growth of the Economy.The government is also encouraging the use of Digital payments despite physical currency. It tries to make the Economy Cashless through various Cashless modes such as Debit cards, Credit cards, Immediate Payment Services(IMPS), National Electronic Fund Transfer(NEFT), and Real Time Gross Settlement(RTGS)it also encourages and strengthensCashless Economy inculcating the habit of making e-payments like Mobile Banking,Rupay cards, UPS, USSD, BHIM app,Aadhaar based Payments, etc. It tries to reduce the dependence on cash for making a clearer Economy in the future. No doubt that the digital economy or cashless economy will take our nation's economy to the next advanced level but it could not neglect the drawbacks backed by these revolutionary changes. As the nation is moving towards Digitization we are also experiencing a number of fraudulent activities on online platforms. Digital frauds and cyber frauds are increasing day by day, there is a need to spread Digital literacy among the residents. With the introduction of cashless transactions, changes in taxation also take place. The Government is trying to make favorable changes in Taxation System for vendors as well as consumers.

The world of the Digital economy continues to grow as technology develops. Websites, social media, YouTube videos, and other digital economic tools are used to promote goods and services. However, Companycard notes, announcements, handouts, business promos on TV and radio, and print advertisements in daily newspapers and magazines are all examples of traditional economic strategies used to promote events or products. Since both the digital economy and traditional economy are used to attract customers and build a brand image, the digital economy is fairly comparable to the traditional economy in this regard. The price of the traditional economy versus the digital economy differs in a few ways. While social media-based commercials are fairly inexpensive, business advertisements on TV, radio, print ads in daily newspapers and magazines, and other similar media all call a lot of money. Although there are some free digital economy tactics but digital economy sometimes be expensive in traditional marketing it might take weeks or even months before the business starts to improve and we don't have to wait long after we begin employing digital economy to notice a significant improvement in the business.

CHALLENGES IN THE DIGITAL ECONOMY:

- **Lack of Digital Literacy:**

Digital literacy is generally focused on digital skills and the use of information and communication technologies in our day-to-day routine. In a country like India where many people do not even get an education, the adoption of this new concept is not easy. If the government wants to make the digital Economy successful, it has to focus on providing digital literacy to every citizen, including using various digital instruments and Internet services.

- **Unable to access Internet services:**

Digital Economy is concerned with the use of information and communication technology as well as the Internet at every level, but the availability of the Internet is also a big problem. Access to the Internet is not always possible; sometimes we have to wait for long hours to get the proper Internet connection. There are so many companies that are providing data services which are expensive too and not every citizen can take benefit of it.

- **Acceptance by people**:

The digital economy has created a gap between those who have access to technology and those who don't, and this has created the problem of inequality among the people. Even though people are trying to accept digitalization, it is very complicated for those who don't have digital as well as Internet access. In rural areas most of the people are illiterate and unaware about the digital services, because of these they do not want to reduce dependance on cash.

- **Increasing Cybercrimes:**

The aim to bring digitization in the country is to make our economy powerful and advanced, but as everything has some advantages as well as disadvantages, we cannot neglect the problem of increasing cybercrimes due to digitization. People need to share personal details on various apps to get authentication, which is very risky. So that people with a lack of digital knowledge can easily be caught under the trap of hackers and criminals, that's why the need for cyber education is arising day by day.

- **Smartphone Adaptability:**

With the acceptance of digitization, people are getting adapted to the use of smartphones. No doubt that technological advancement is necessary for growth and development but it also has some side effects like a long time on screens, tech neck, losing creativity, fatigue, sleep disorders, depression, anxiety, etc. Using digital devices can give us a number of solutions to our problems but excessive use of it is harmful. The severe problem is that the new Generation is getting too much addicted to smartphones.

- **Difficulty in accessing banking services:**

In a country like India, there is the problem of illiteracy still exists, so many people even don't know the way to operate bank accounts. From the rest of the population having bank accounts, some do not trust online banking, so they do not prefer to go for using digital instruments and services. There is a severe need for digital literacy among people. Nowadays many organizations are spreading awareness in society by organizing camps, seminarsads, etc.

- **Shortage of Digital Talent:**

Transformation of the Economy to a Digital Economy is not so easy,it will take a long time to make this successful. Digital literacy and digital talent are the need of the hour. The government has provided many job opportunities on digital platforms like the IT sector and in the electronic sector, these jobs require digital skills as well as qualifications, the new generation of the country is moving towards gaining digital talent but no doubt today there is a lack of digital talent in our country..

- **Lack of coordination:**

The digital economy has provided us with a lot of online transactions, online dealings, online shopping, online documentation, online education, and online administration. As all these things happen on online platforms so there is a lack of coordination between the sailors, businessmen, government departments, service providers as well as end consumers. There will be no physical contact between the vendor service provider or the consumers, so if you find any difficulty or receive some defective product then you cannot go directly to the vendor. It will take a long time to solve your queries complaints and their redressals.

➢**Fatigue and health issues:**

Fatigue results in slower reactions, reduce ability to process information, absent-mindedness, decreased awareness, lack of attention, reduced coordination, and reduced creativity. The long working hour in front of screens, excessive use of mobile phones, habit of online surfing, social media apps, payment of various bills online, and online shopping has reduced the mobility of men so that these are affecting the physical fitness of human being this leads rise to some health issues as well as the conditions of fatigue.

BENEFITS OF THE DIGITAL ECONOMY:

➢**Transparency:**

As we know that digital economicsrefers to online transactions which gave rise to more transparency in the economy. As our government organization is mostly based on digital technologies and networks to become more transparent and enjoy smooth working in the organization. The government has taken initiative to make the economy digitalized to bring the public and residents of the country on a single platform so that anybody can access any information digitally whenever needed.

➢**Digital delivery of goods and services:**

Digital goods and services are those which are sold and delivered in a digital form Customers can easily buy the different types of products with the organization can deliver via online devices. Digital goods like e-books, software, clothing, downloadable music, etc. whereas digital services like legal advice, consultancy services, hospitality, tourism, etc.

➢**New opportunities for E-commerce:**

E-commerce is the trading of goods and services over the Internet. Digital economics and e-commerce are equivalent in terms of both dealing with buying and selling of goods on an online basis online business has given a very vast platform for the business as well as a consumer here consumer can buy the goods and services directly through the manufacturer as well as wholesaler they have a wide variety of products available 24 by 7 businesses can deal directly with the consumer they also need very less capital to start an online business so it provides new opportunities for e-commerce.

➢**Employment opportunities:**

As we are living in a rapidly growing and digitalized economy. There are various new job opportunities in the digital economy like cyber security, web designing, social media, digital marketing, BPO, KPO, etc. Nowadays most of program organizations required very skillful candidates to perform the work efficiently and effectively. The government has also set the nine pillars for digital India in which electronic manufacturing and jobs for IT main pillars for creating many new job opportunities in the digital program.

➢**Digital Advancement:**

Digital advancement referred to investments in digital access and adoption to advance human potential and build a more inclusive digital economy. There are various digital technologies like the Internet, cloud computing, big data, etc are all used to collect, store and share information digitally digital advancement gives a boost to growth and development in the economy.

➢**24*7 Services:**

The digital economy is not restricted or limited by geographical boundaries. This economy is interconnected throughout the globe which makes the business reach a new market and new customers. Here the business can be operated round the clock and reach out to customers at any time anywhere as the digital economy is available 24 by 7 to all its customers.

➢**Flexibility:**

Credibility is required by each and every organization to grow and stabilized in the market. As for the huge advancement in technologies, there arise various work challenges, to copewith these challenges one must make themselves flexible to adaptto the advancement and face the challenges.The Digital economy gives easy access to the organization which brings flexibility to all the persons working in the organization.

➢**Reduce tax evasion:**

Digital economic makes the reduction in tax fraud by enhancing information collection.Digitalization has influenced the collection of tax processes worldwide by improving the speed, quality,and accuracy of the information and changing the ways of reporting, controlling,and auditing the text. Improving the control tool and increasing efficiency while giving a new opportunity for evading the tax gives rise to reducing tax fraud. Digital transactions brought much transparency in the Economy for taxpayers.

➢**Convenience and lower risk:**

Digital economics become easier and more convenient than the traditional economy. As people from anywhere can do transactions as and when needed, plastic cards like debit cards, credit cards, etc can be used easily as it doesn't require carrying money everywhere so there will reduce risk and provides convince to the users.

➢**Reduce maintenance cost:**

The digital economy gives a huge scope to a business organization.The main objective of every business is to achieve the maximum level of outcome and profit maximization at a lower possible cost. In the digital world advanced technology makes it possible to cut down unnecessary expenses like maintenance costs which helps to keep the budget under control.

➢**Helps to reduce paperwork:**

The digital India program is the flagship program of the Government of India with the vision to transfer India into a digitally empowered society and knowledge economy.Faceless,paperless,and cashless are one of the proposed roles of digital India as the digital economy leads to the online trading of goods and services, it gives the rest to the traditional economy.The digital economy helps to reduce the paperwork and make the paperless economy. Nowadays there is no requirement of carrying cash every time everywhere, any customer can do the trading by using plastic cards which leads to a paperless economy. It also focuses on less documentation, like one can do any administrative work online or through portals.

CONCLUSION:

Indian Economy is nowclassified into two EconomiesTraditional Economy as well as Digital Economy.The Digital Economy generates a new market throughout the world which is also given rise to its various opportunities and challenges.It is expected that it can be improved the Indian economy in the long run by increasing tax compliance and financial inclusion consequently improving the state of the economy. The initiatives were taken to make use of ICT in different aspects of the Country such as e-commerce, e-governance, e-Kranti, digital payments, Digi lockers, etc. This is a step towards making the Economy Powerful by reducing paperwork, reducing the use of physical currency, avoiding Delay in administrative work, etc. Digital Economy is a positive move to bring people and administration on a single platform, which will bring more transparency. The government is seeking cooperation and acceptance from the people to make this initiative successful.

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Digital Economy and it's opportunity and challenges in India

Dr. Iftekhar R. Hussain
(Head & Associate Professor)
Seth Kesarimal Porwal College of Arts, Science & ManagemenNagpur
Email: profiftekhar@gmail.com
Mobile No. 9850691078

Nasrin Bano Mohammad Rafique Mohammad
(Assistant Professor)
S.S. Maniar College of Computer and Commerce, Kamptee 441001 Dist. Nagpur
Email: nasrin13raf@gmail.com
Mobile No. 9156936115

ABSTRACT

As we know the world is continually changing and one of the fundamental drivers is digital transformation.Day to day people, businesses, communities, organizations, and the Government use digital technology to make goods, to make decisions and to deliver services more skillfully and more quickly. Undoubtedly, with the digitalization peoplefrom distant area can also enjoy these serviceswith the help of internet and infrastructure.The digital economy is the worldwide network of economic activities, trade and professional relations that are enabled by information and communications technologies (ICT). Activities includes like buying and selling,evaluate education, bankingor entertainment using the internet and linked devices.TheGovernment of India launched the Digital India campaign to make government services available to citizens electronically by network improvement and also by enhancing internet connectivity. It also aims to empower the country digitally in the estate of technology. But it's a big challenge and hindrancesinfront of government for successfully implementation of project. Problem involved such as low internet speed, poor infrastructure, lack of coordination among various departments, andlast but not the least, digital illiteracy. For the success of digitalization,First of all it is the requirements that to make people aware of these challenges, Because once it is implemented successfully, it will pave the way of Opportunities for the citizens of India.The main purposeof this study are opportunities and challenges of digital economy in India.

Key Words: Digital, Economic, Technologies, implementation, Communications, Opportunities, challenges

INTRODUCTION

Digital: Digital is a new way of interacting with customers. It represents an entirely new way of doing business. Digital Economy: "Digital economy" refers to the use of information technology to create or adapt market, buying and selling or consume goods and services. Digital novelties include digital banking, virtual education, Smartphone apps, and e-commerce. The Digital economy is also sometimes called the Internet Economy, Web Economy, or the New Economy.

In recent years there is a growth of internet, telecommunications and wireless communication, technologies, etc. The nature and structure of banking and financial services have gone for a sea change. E-banking or Internet banking is the latest in this series of technological wonders in the recent past which involves use of internet for delivery of banking products and services, deposits, transfers, and online bill payments.A cashless India is the first preview towards making the dream of digital India a reality.

In the evening of November 8, 2016, at 8 P.M., the Prime Minister of India Shri Narendra Modi announced the demonetization of 500 and 1000 rupees notes in India. That historic decision had many motive .One of the reasons is to step up towards the dream of a cashless India. The traditional form of monetary transactions happens with the exchange of physical cash between people. Cashless India is going to make it almost inessential. This idea has got a huge amount of due to the ongoing COVID-19 pandemic, given the concerns with the exchange of physical cash. During the coronavirus crisis, digital payments have been keeping economies running and helping people reduce contact with virus. Contactless digital payments at the point of sale, such as facial recognition, Quick Response (QR) codes or near-field communications (NFC), can make it less likely for the virus to spread to others through cash exchanges. Digital payments are limiting in-person transactions and consumers can buy crucial from the comfort of their homes. E-commerce initiatives are also helping small businesses keep revenue flowing during an uncertain time. Online payments are even helping to put stimulus funds into consumers' hands more rapidly. For example, Government of India transferred Rs 1,000 through direct benefit transfer to each bank account of 23.05 lakh daily wagers as part of its scheme to assist those whose livelihoods were hit during the pandemic.

OBJECTIVES

1. Objective of thisstudy is to understand digital Economy, Sharing, opportunities, challenges.
2. To find out the problems and challenges faced in implementation of digital India Programme.
3. To find out some practical solutions and remedies as well as Innovative ideas to accomplish the vision of IndiaDigitalIndia-a reality

OPPORTUNITIES

Technology is also providing criminals with new methods of intervention into ATMs and similar systems. By splitting or burning small holes into an ATM at case in order to reach the ATM's computer hardware components. The attackers use this access to control the ATM's operating system and force it to dispense cash.

Digital players start making an impact on market.

Market Cap is an important measure in finding comparative value of firms with regard to trading opportunities. With its market capitalization of $2.64 trillion, Apple ranks as the biggest company in the world in 2022 followed by some most noticeable brands like Microsoft, Saudi Armco, Amazon and Alphabet.

Digital technologies have already altered the world

Digital devices have already altered the world in which we live. Globally, we are more connected than ever before. Our personal digital footprint makes available increasing amounts of data about ourselves and the lives of others, all the while raising questions about our privacy, security and identity.

Public policy is crucial for the progress of the digital economy

Worldwide, economists should adopt public-private policies to encourage innovation in a digital economy, Including India. Also, they must encourage better integration of new technologies, automation and data into legacy economy. Steps must be taken to recommend skills required to produce in a digital economy at early Levels, specifically at schools.

Digital Economy gives new tools for conducting businesses physical effortlessly through the internet. Physical marketing can be changed with online to capture large amount of customers along with the right age group suitable for products. Cloud computing can be used to promote digital services as it is getting cheaper every year to run. Sellers can put on the online advertisement with minimum cost that can stay longer and attract attention.

CHALLENGES

Digital Economy is not only adopting new software, technologies, and processes that are more efficient and automated than traditional business practices and processes; it's an entirely new, innovative way of doing something that is core to your business.

That means organizations must consider everything when taking on a digital Economy initiative – from how people will react to the change, how it will impact customer relations, the cost, how it will align to business goals, and so forth. Digital transformations empower organizations to take their business into the future, and position companies to withstand competition and grow into new areas.

Complex Software & Technology

Enterprise software is intrinsicallycomplex. New technologies can be frightening. This is a big challenge for organizations undergoing digital transformation– both from a data integration and perspective implementation, as well as from an end-user experience perspective. Leaders should consider this when in the primary stages of a transformation project, and explore out the most intuitive, integrated systems.

Continuous Evolution of Customer Needs

Organizations are always growing– and COVID-19 accelerated this. Think about what a customer wants. That changes as the world developand industries change.

Digital economy is not an easy project, and intensive modification an take years to accomplish. What happens if, during that time, your consumer needs change? Evolution of consumerproblem will happen. Don't be surprised, and plan to be quick when it comes time to adopt new digital technologies.

Adoption of New Tools & Processes

New processes and technologies often present challenges in the form of resistance to change from tenured employees who feel there is nothing wrong with the way they're currently doing things. For new software implementations, organizations must provide comprehensive onboarding training, as well as continuous employee performance support to help employees become productive and proficient with a tool quickly, allowing them to understand the worth of these new processes.

Culture Mindset-Organizations with manual processes and legacy systemsoften have an old-school mentality. Things change steadily, automation is looked down upon, and new technologies are challengingto adopt. A giant challenge of digital transformation is a cultural one. Everyone from leadership to new employees – must be on the same wave length. Everyone should be ready to make great changes in their day-to-day lives, and not be afraid of learning new things.

Security Concerns-A push back many organizations enterprise in data-sensitive industries have is privacy and cybersecurity concerns. And that is valid. Most digital transformation efforts involve leaving behind on premise solutions to move to the cloud, as well as integrating all of a company's data into one integrate system. Naturally, this brings up the increment threat of cyber attacks stealing customer data and company secrets. Online attacks can target system susceptibility, vulnerabilities, poor setups, and unsuspecting users. Be sure to have a plan in place to proactively lighten these threats before they happen. Bring in a cyber security experienced to help identify weakness in your defense.

Measurement and classification challenges

- Policy-making for a Digital era
- Skill, Capability, Infrastructure gaps
- Work and Wage effects
- Internet access and Governance
- Data and Privacy
- Cyber security

CONCLUSION-India will be the biggest consumer of digital technologies in times to come. Another reason is opportunities-and-challenges that the world-over, there are lot of channels of communication to access goods and services and digitalchannel happens to be the most convenient and the latest. The government and private sector, workingtogether, must address these problems in ways that make the Internet a safe environment while not contrasting its commercial development. Digital revolution, also known as 'Internet of Everything (IoE) or 'The Internet Economy' is expected to generate new market growth, jobs ,opportunities and become the largest business opportunity of mankind in the next 30 to 40 year's. We need to be ready, as an economy and a community, to respond to change and to grasp the opportunities of the digital economy. New and emerging digital technologies are changing the way business work and industries. There are many instances where the market is adjusting well to digital transformation. The long term effects of Demonetization are yet to be ascertained. It is expected that it can improve the Indian economy in the long run by financial inclusion, increasing tax compliance, consequently improving the state of the economy. It can hike the GDP by increasing the availability of funds for lending and also by reducing transaction costs if the economy moves to digital modes of payments.

A new digital application or process will not automatically be more effective – you'll need to provide proper training, onboarding, and support to your employees or end-users to empower them to use these systems better. To ensure the success of your digital transformation project, invest in a digital adoption platform (DAP).DAPs provide organizations with no-code tools to create in-app content to provide a contextual onboarding experience, as well as ongoing performance support. This includes:

- Interactive walkthroughs and user flows that take new users on a step-by-step tutorial of how to use different features
- Product tours and onboarding experiences that include popup windows, highlight different areas of a product, and overlap task lists on a user's screen that must be completed
- Embedded knowledge bases that include a searchable repository of frequently asked questions on the platform, and allow companies to include links to other performance support resources in their SharePoint, Google Drive, internal wiki, or anywhere on the web.

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The Role Of Fintech Companies In Promoting Financial Inclusion In Emerging Markets

Ila Vyas (Research Student)
Dr. Dnyaneshwar. N. Padole (Associate Professor)
Vmv Commerce, Jmt Arts & Jjp Science College. Nagpur
1,Mobile Number- 9890931882 ,Email Address - ilavyas2293@gmail.com
2,Mobile Number - 9422127140

Abstract

Financial inclusion is a crucial element in promoting economic growth and reducing poverty in emerging markets. However, access to financial services remains a major challenge for many individuals and small businesses in these regions. Fintech companies, with their innovative technologies and business models, have the potential to bridge this gap and bring financial services to the unbanked and underbanked populations. In recent years, fintech has emerged as a key player in promoting financial inclusion in emerging markets, but the impact of fintech companies in this area remains largely unexplored. This research paper aims to examine the role of fintech companies in promoting financial inclusion in emerging markets and the challenges they face in doing so.

One of the main objectives or aims of using such technologies is poverty alleviation. The paper examines the challenges, role of governments, financial institutions and fintech companies in ensuring financial inclusion for the vast majority of the unbanked population in developing and emerging countries.

This research paper solves the purpose of how financial inclusion comes into existence and how did we apply it in our day to day lives.This research paper mainly contributes towards the study and role of how these fintech market came into reality and to which extent it solves our issues in digital era.

Financial inclusion refers to the method of ensuring that individuals and businesses, those in traditionally underserved communities, have access to basic financial services such as savings accounts, credit, insurance and payment systems. This process plays a crucial role in the development of financial markets and the economy as a whole

Keywords

Fintech, digital financial inclusion, fintech banked companies,banking , institutional theory ,mobile computing ,smart phones

INTRODUCTION:

The purpose of this paper is to discuss digital financial inclusion with emerging fintech. Over the years, the number of digital applications offering financial services has increased and continues to grow. This paper will cover the key objective of the research, how the research evolves studying various factors of financial inclusion and the conclusion of research.

As we talk about financial inclusion in India, the cashless transaction system is growing day by day as the market becomes globalized and the growth of the banking sector, more and more people shifted from cash to cashless system. The cashless system is not only a necessity, but also a need of today's era. In recent years, attempts to promote financial inclusion in India have met with mixed results. Access to bank accounts has heightened dramatically, driven by strong political and regulatory pushes.

Due to the rapid development of the Indian economy over the past decade and the expansion of economic and financial markets through liberalization, privatization and globalization, an increased supply of financial products has emerged in banking, investment and credit products. A low level of financial education prevents individuals from making the right decisions regarding financial decisions. In order to achieve the aims and objectives, individuals must invest their savings in the right investment options for better future results. The basic objective of the study is to examine the level of financial literacy in India using literature-based analyses. Secondary data collected from

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various websites, journals, research papers and articles. It has been noted that financial literacy in India is very low and efforts are needed to improve the level of education.

DIGITAL FINANCIALINCLUSION:

Technological inventions and advancements paved the way for the upheaval on the financial market. New technologies which are stated as the internet, artificial intelligence, machine learning, big data, biometric identification and blockchain technology gave birth to new financial technologies (fintech), namely Unified Payment Interface, Immediate Payment System and Mobile Money. As a result of the development of fintech, digital financial companies and digital financial services and products emerged, which became very famous among people due to their simple, fast, and easy-to-use features. In fact, digital financial companies are working further in the name of digital financial inclusion by serving the excluded, marginalized, neglected individuals and **small and medium-sized businesses** through their innovative, affordable, best quality and fast digital financial services and products.

ROLE OF DIGITAL FINANCIAL INCLUSION :

Key benefits:

Improved access to financial services: Digital financial services can be provided remotely, making it easier for people in remote or under-served areas to access financial services.

Increased financial inclusion: Digital financial services can reach more people, especially those who have previously been excluded from the traditional financial system, such as women, low-income individuals, and small businesses.

Increased financial literacy: Digital financial services can help improve financial literacy and understanding, as users are provided with information and education about financial services and products.

Improved financial efficiency: Digital financial services can reduce the cost of providing financial services and increase the speed and efficiency of transactions.

Increased economic activity: By providing access to financial services, digital financial inclusion can support economic growth and increase economic activity, especially in underserved and rural areas.

In conclusion, digital financial inclusion has the potential to play a crucial role in promoting financial inclusion and economic development, especially in countries where large portions of the population remain unbanked.

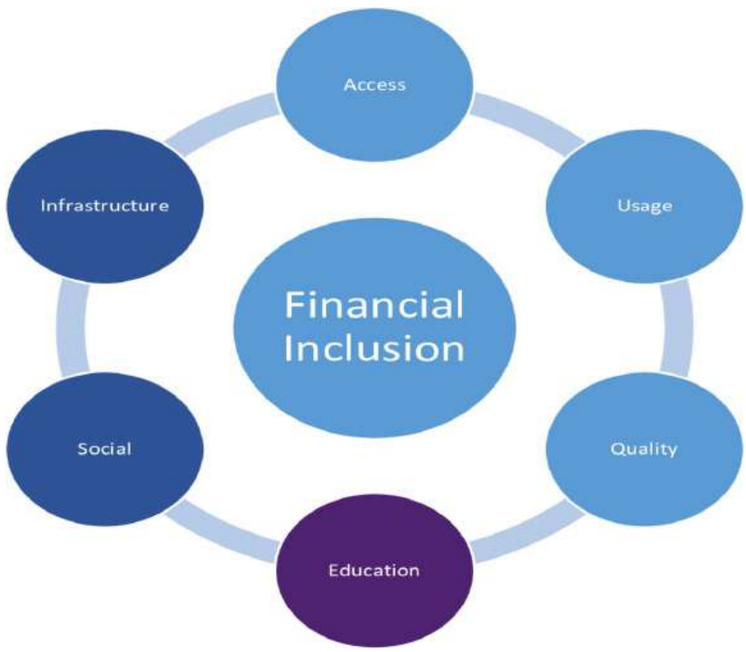

FIGURE 1.1 - SIX ELEMENTS OF FINANCIAL INCLUSION

METHODOLOGY / APPROACH OF FINANCIAL INCLUSION: -

This paper is based on doctrinal, sociological and comparative research investigations. Researchers conducted content analysis based on data from only secondary sources, including existing legislation, magazine articles, newspaper reports and policy documents.

As per reports stated in RBI bulletin Dated-16 Sep 2021:-

The construction of the FI index has three major challenges, viz. choosing appropriate indicators or variables, setting the target (desired level) and determining the weight distribution.

The FI-Index constructed by the Reserve Bank is based on the three dimensions of financial inclusion, viz., 'Access', 'Usage' and 'Quality' with weights as 35, 45 and 20 per cent respectively. The weights were determined to make the index forward-looking with higher weights to the deepening aspect of financial inclusion ('Usage' and 'Quality')

Access' sub-index, which is further divided into four dimensions, viz., 'Banking', 'Digital', 'Pension', and 'Insurance', reflects the efforts made on the supply side of financial inclusion, such as availability of physical and digital infrastructure and measures for making basic products and services available for the excluded segments. The 26 indicators across four dimensions have been selected to capture number of banking outlets including BCs, NBFCs, and post offices etc., total number of savings accounts including small savings, all type of cards and electronic payment infrastructure, JAM ecosystem, subscription base of various pension schemes and offices and agents of life and non-life insurance etc.

'**Usage'** sub-index is divided into five dimensions, viz., 'Savings & Investment', 'Credit', 'Digital', 'Insurance' and 'Pension'. Comprised of 52 indicators, it is more of a demand side measure and reflects the extent of active usage of financial infrastructure by way of savings, investment, insurance, availing of credit and remittance facilities, etc. The indicators are designed to reflect savings and investment habits, availing of credit from banks and non-banks, use of retail digital payments, penetration of insurance both life and non-life, and contribution to various pension schemes.

'**Quality'** sub-index has three dimensions, viz., 'Financial Literacy', 'Consumer Protection', and 'Inequality' in the distribution of financial infrastructure with 19 indicators. These indicators capture the efforts undertaken by the stakeholders to make citizens aware of the appropriate financial services available, safe ways of using them, and making them aware of their rights such as to overcome the psychological barriers. They also reflect effectiveness of the grievance redress mechanism and account for uneven distribution of certain indicators of financial access and usage. Gini coefficient based on Lorenz curve with district level data granularity has been used to measure inequality.

$$N_i = Normalised\ value\ (Y_i) = \frac{Y_i\ - State\ when\ no\ Financial\ services\ were\ available}{Desired\ goal\ (t_i)}$$

$$N_i = \frac{Y_i - 0}{t_i} = \frac{Y_i}{t_i}$$

$$\text{Let } d_i = w_i * N_i;\ d_i^2 = d_i * d_i;$$

$$\text{Let } D^2 = d_1^2 + d_2^2 + \cdots + d_k^2 = \sum_{i=1}^{k} d_i^2;$$

$$\text{Let } W^2 = w_1^2 + w_2^2 + \cdots + w_k^2 = \sum_{i=1}^{k} w_i^2 \text{ and}$$

$$(W - D)^2 = \sum_{i=1}^{k} (w_i - d_i)^2$$

$$\text{Let } X_1 = \frac{\sqrt{D^2}}{\sqrt{W^2}} \text{ and } X_2 = 1 - \frac{\sqrt{(W-D)^2}}{\sqrt{W^2}}$$

$$\text{FI Index of a dimension} = \frac{X_1 + X_2}{2}$$

Fig 1- formula for FI (cited from RBI article dated September 16-Ref link)

Data and Outcomes

Required data, at annual frequency, for all indicators for the period 2017-2021 have been obtained from the respective sector regulators.

The annual FI-Index computed for 2021 stood at 53.9 as against 43.4 for 2017 registering compound annual growth rate (CAGR) of 5.5 per cent.

Of the three sub-indices, FI-Access with the index value at 73.3, expectedly, is higher as compared to both FI-Usage (43.0) and FI-Quality (50.7) which indicates that building blocks for greater financial inclusion in the form of financial infrastructure put in place over the years needs to be built upon by deepening the FI through focusing on promoting 'Usage' and improving 'Quality'.

Access sub-index: Large number of measures since 1950s and recently, as outlined above, have been undertaken in providing greater access to financial services. Accordingly, 16 out of 26 indicators under 'Access' have index values which are more than the overall index value of 53.9, resulting in Access sub-index value of 73.3, which for a country of India's size and diversity, indicates commendable progress. This value is largely driven by the growth over the years, and recently, in the number of bank outlets manned by own staff, FBCs, total number of savings accounts, post offices, number of subscribers in Mutual Funds (MFs), JAM ecosystem, number of offices for insurance, Prepaid Payment Instrument (PPI) issuers, and Point of Sale (PoS) terminals etc..

Table 1: FI-Index and Sub-indices

Year	Access	Usage	Quality	FI-Index
Mar-17	61.7	30.8	48.5	43.4
Mar-18	63.9	33.7	51.4	46
Mar-19	67.5	38.7	52.6	49.9
Mar-20	71.6	42	53.8	53.1
Mar-21*	73.3	43	50.7	53.9

*Some of the data points are provisional.

FINTECH COMPANIES :

Fintech, short for **Financial Technology**, refers to the use of technology to improve and streamline financial services. In recent years, fintech companies in India have grown rapidly and are revolutionizing the traditional financial sector by offering innovative solutions to consumers and businesses. Some of the key areas where fintech companies are making an impact in India are digital payments, personal finance, wealth management, insurance, lending and blockchain.

Some of the well-known fintech companies in India include:

- PhonePe: Another popular digital payments company that offers seamless UPI transactions, mobile recharges, and bill payments
- Paytm: A digital payments company that offers a range of financial services including mobile recharges, bill payments, and digital gold purchases.
- PolicyBazaar: An online insurance comparison platform that helps customers compare and buy insurance policies from various insurance providers.
- Upstox: A low-cost online trading platform that offers a range of investment options including equity, derivatives, mutual funds, and more.
- ZestMoney: A digital lending platform that provides instant personal loans to customers
- BharatPe: A UPI-based payments platform that enables merchants to accept digital payments from customers.
- Cred: A credit card rewards platform that offers rewards and cashbacks to users who pay their credit card bills on time.

ROLE OF FINTECH COMPANIES IN INDIA :-

Fintech companies in India have played a key role in revolutionizing the traditional financial sector. They have been instrumental in generating financial services far more accessible and very

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affordable for people, particularly those previously excluded from the formal financial sector. Some of the key roles played by Fintech companies in India are:-

● **Digitizing Financial Services**– Fintech companies have transformed the way financial services are delivered to consumers. They have used technology to digitize financial services and make them more accessible, convenient, and secure

● **Cost-Effective Solutions** - Fintech companies have been able to provide cost-effective financial services due to their low overhead costs. This has made financial services more affordable, thereby increasing their accessibility to people from all walks of life.

● **Improving Customer Experience**– Fintech companies have used technology to improve customer experience by providing easy-to-use, user-friendly digital platforms. They've made financial services more accessible and convenient, reducing the time and effort it takes to access those services.

● **Financial Inclusion**– Fintech companies have been instrumental in increasing financial inclusion in India. They have been able to reach people previously excluded from the formal financial sector and offer them a range of financial services including microfinance, digital payments and remittances.

● **Innovations in Lending**- Fintech companies have introduced innovative lending solutions tailored to the specific needs of different demographics. They have used technology to lend to small businesses, low-income households and individuals with limited credit histories.

FACTORS AFFECTING FINTECH IN INDIA:-

There are several challenges and issues affecting the growth and development of fintech in India. Some of the key challenges include:

● **Regulation**: Despite the growing importance of fintech in India, the regulatory framework for this sector is still evolving. This has created uncertainty and a lack of clear guidelines for fintech companies, making it difficult for them to operate and scale their businesses.

● **Poor internet connectivity:** To grow the market for this large population if India we need better connectivity of internet .However we know that India does not have that For the majority of the population, the concept of smartphones and other gadgets is still very new; The connection via the Internet is therefore still in the development stage.

● **Competition from Established Financial Institutions:** Fintech companies face intense competition from established financial institutions that are investing heavily in technology and digital services. This has made it difficult for fintech startups to break into the market and secure funding from investors.

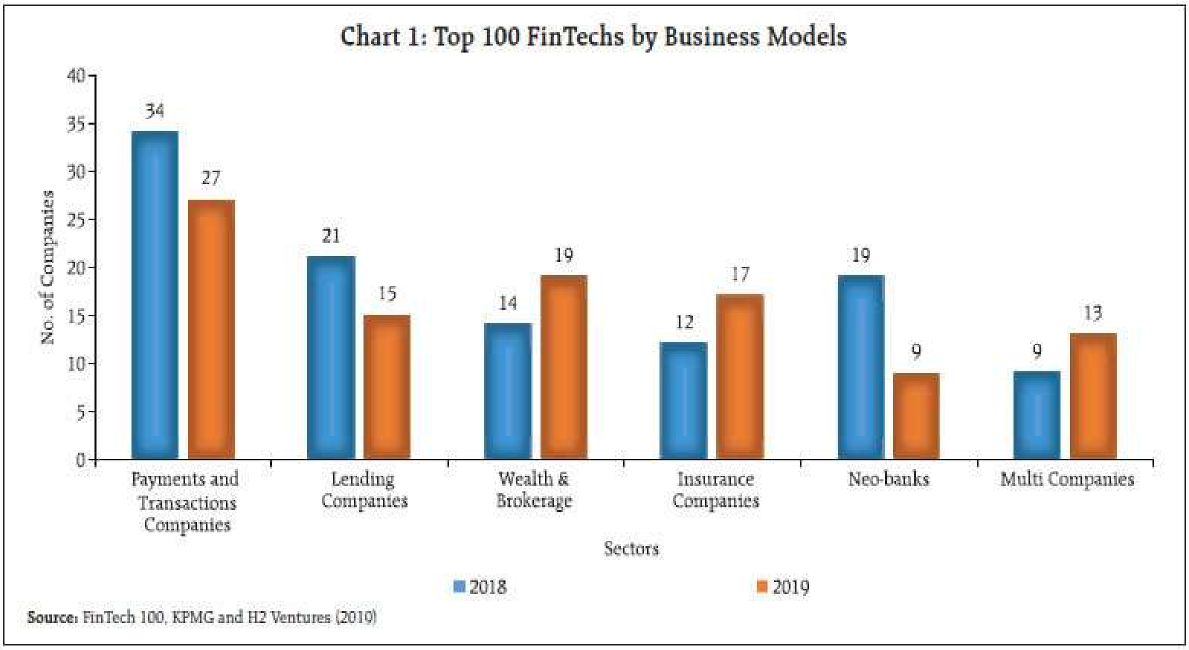


Fig 2 - Fintech company categories (Ref link)

Major rulers of Indian Fintech markets:

A little glimpse towards the major area where fintech emerged in this emerging markets.Propelled by massive strides in internet and smart phone penetration, FinTechs have expanded their reach rapidly in India

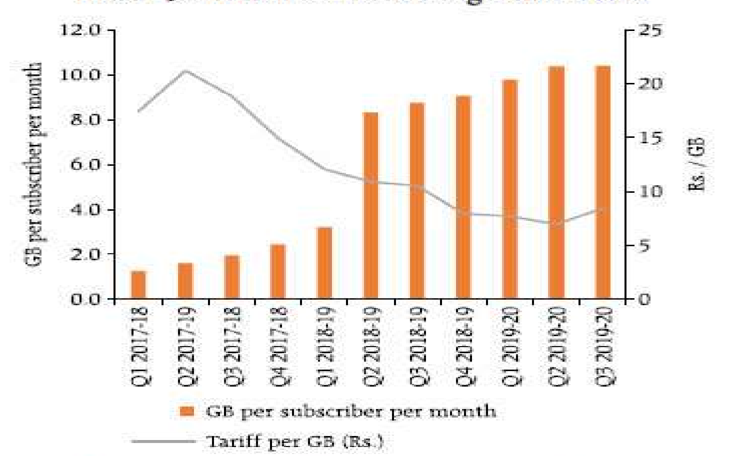
Table 2 : Telecommunications Indicators

Parameter	Period	Cumulative amount
Telephone Subscribers	31-Mar-14 to 30-Apr-20	116.8 Crore
Teledensity	31-Mar-14 to 30-Apr-20	86.6 %
Internet Subscribers	31-Mar-14 to 31-Mar-20	74.3 Crore
Broadband Subscribers	31-Mar-14 to 31-Mar-20	68.7 Crore
Wireless Data Usage	Q3 2019-20	21,402 Petabytes
Telecom Usage (Monthly Wireless Average Revenue per User)	31-Mar-14 to 31-Dec-19	□ 78.7
Telecom Towers	01-Sep-17 to 27-Jul-20	6,05,788
Gram Panchayats connected under BharatNet	31-Aug-14 to 30-Jun-20	1,41,098
Telecom Licenses	31-Mar-14 to 30-Jun-20	156
Source: Department of Telecommunications, Government of India (2020)		

Table - 1

The Indian market is blessed with a higher proportion of young population, who are more likely to trust and adopt FinTech. There were 1157.75 million wireless subscribers in the country as on March 31, 2020, comprising 638 million urban and 519 million rural subscribers (TRAI, 2020). India and China lead the Global FinTech Adoption Index 2019 with an adoption rate of 87 per cent. While per capita internet usage has increased, tariffs have declined

Chart 5 : Wireless Data Usage and Tariff



Source: Department of Telecommunications, Government of India (2020).

Conclusion / result of stated research problem: -

Financial inclusion through fintech, if implemented appropriately, is critical to eradicating poverty in developing and emerging economies. Therefore, this paper will be useful for researchers studying how technology affects financial inclusion. The paper will also help policy makers and practitioners in financial technology regulation to improve the effectiveness of financial inclusion policy makers and practitioners and implementation strategies in developing and emerging economies.

Findings:-

In this research it has been seen that t despite various efforts by government, regulators and financial institutions, the financial inclusion gap has widened through the development of various digital platforms, including encouraging use of smart-phones for mobile payments and ATMs (ATMs) and mobile money. Some reasons are responsible for the gap in financial inclusion: illiteracy, poor infrastructure, intermittent electricity supply, poor cell phone coverage, especially in rural areas, constant network outages by banks, unnecessary fees, and privacy breaches, among others.

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Green synthesis of 5-arylidene barbituric acids catalysed by TiO_2 NPs

Jay A. Tanna

(Assistant Professor(Adhoc)) PG Department of Chemistry, VMV College, Wardhaman Nagar, Nagpur -440008, Maharashtra (India),Mobile No. +91 8055607557,E-mail: jaytanna9999@gmail.com

Nilesh V. Gandhare

(Assistant Professor) PG Department of Chemistry, Nabira Mahavidhalaya, Katol Dist. Nagpur - 441302, Maharashtra (India) ,Mobile No. +91 9673100709 ,E-mail: nilkanth81@gmail.com

Abstract:

In Present work, TiO_2 nanoparticles were used as catalyst for the solvent free green synthesis of 5-arylidine barbituric acid and its derivatives. The TiO_2 nanoparticles were found to be most efficient catalyst being inexpensive, stable, can be recycled and reused for three cycles without loss of its activity. The obtained products from the catalytical application of nanoparticles were characterized by various spectroscopy techniques such as ^{1}H NMR, FTIR and Mass analysis.

Introduction:

Barbituric acid or 6-hydroxyuracil is an organic compound based on a pyrimidine heterocyclic skeleton. It is an odorless powder soluble in water. Barbituric acid is the parent compound of barbiturate drugs, although barbituric acid itself is not pharmacologically active. The derivatives of barbituric acid (2, 4, 6-trioxypyrimidine) are known as barbiturates. They are a class of drugs that have diverse applications such as sedatives, hypnotics and anticonvulsants under a variety of conditions and are also employed for anesthesia [1]. They are also used for the treatment of anxiety, epilepsy and other psychiatric disorders and possess effects on the motor and sensory functions [2]. Owing to the wide range of biological and medicinal activities, the synthesis of 5-arylidine barbituric acid compounds by the use of barbituric acid and 2-thio barbituric acid as starting compound have become an important target in recent years [3-4].

Solvent free organic reaction have drawn great interest, particularly from the viewpoint of green chemistry as organic solvent are toxic and flammable. Solid state reactions are simple to handle, reduce pollution and comparatively cheaper to operate. Heterogeneous catalysts offer several intrinsic advantages over their homogeneous counterparts such as easy removal of catalyst, operational simplicity and reusability [5].

The use of metal nanoparticles in the field of catalysis is of great interest, since they have a large surface-to-volume ratio compared to bulk materials. Recently, there has been growing interest in using bismuth sulfide nanoparticles in organic synthesis because of their potent catalytic activity, high stability and non toxic [6-10]. Herein, we were reported a simple, easy and convenient protocol for the microwave assisted synthesis of 5-Arylidene Barbituric Acids derivatives catalyzed efficiently by TiO_2 NPs.

Synthesis of 5-arylidene barbituric acids by TiO_2 nanoparticles:

A mixture of aromatic aldehydes (1 mmol), barbituric acid (1 mmol) (solid aromatic aldehyde wetted with ethanol) and TiO_2 nanoparticles (15 mol %) (Scheme 1) was kept in microwave having voltage 340 V till the completion of reaction monitored by TLC (ethyl acetate and n-hexane 7:3). After completion of reaction solid product obtained was dissolved in 10ml ethyl acetate, filter and allow evaporating the filtrate. Finally pure product was obtained by recrystallization and authentic samples were characterized by FTIR, ^{1}H NMR.

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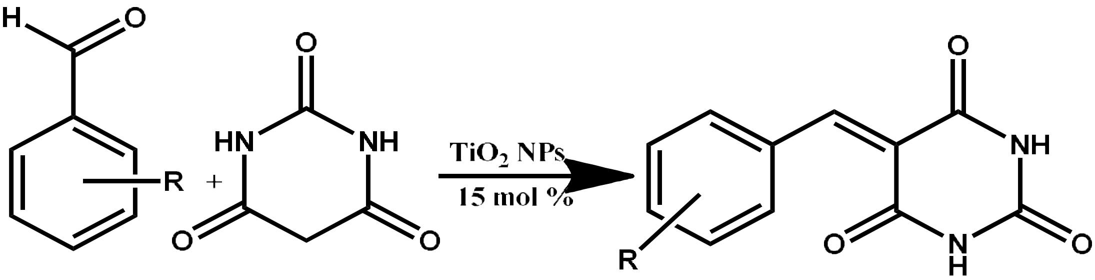


Scheme 1: Synthesis of 5-arylidene barbituric acids by TiO_2 nanoparticles

Spectral data of some selected compounds:

1. **5-Benzylidene barbituric acid** (Table 1, 3a): FTIR (KBr): 3100-3060, 1730, 1670, 1540, 1430 cm^{-1}; ^{1}H NMR (DMSO d_6/TMS): 11.40 (s, 1H, NH), 11.22 (s, 1H, NH), 8.35 (s, 1H, CH=C), 8.13 (d, 2H), 7.44(m, 3H).
2. **5(4-Cl-Benzylidene) barbituric acid** (Table 1, 3b): FTIR (KBr): 3404, 3214, 2970, 1755, 1703, 1570 cm^{-1}; ^{1}H NMR (DMSO d_6/TMS): 7.53(d, 2H, Ar-H), 8.08(2d, 2H, Ar-H), 8.25(s, 1H, HC=C), 11.25(s, H, NH), 11.40(S, 1H, NH).
3. **5(2-Cl-Benzylidene) barbituric acid** (Table 1, 3c): FTIR (KBr): 3460, 3120, 2981, 1754, 1569, 1454, 1079, 910, 782 cm^{-1}; ^{1}H NMR (DMSO d_6/TMS): 7.36 (t, 1H Ar-H), 7.47 (t, 1H, Ar-H), 7.53 (d, 1H, Ar-H), 7.73 (d, 1H, Ar-H), 8.29 (s, 1H, HC=C), 11.25(s,1H, NH), 11.47(s, 1H,NH).
4. **5(4-OH-Benzylidene) barbituric acid** (Table 15, 3i): FTIR (KBr) 3420, 3214, 2970, 1755, 1703, 1570 cm^{-1}; ^{1}H NMR (DMSO d_6/TMS): 6.86(d, 2H, Ar-H), 8.32(2d, 2H, Ar-H), 8.24(s, 1H, HC=C), 10.68(S, 1H, OH), 11.13(s, H, NH), 11.25(S, 1H, NH).

The synthesis of biologically active of 5-arylidene barbituric acids and its derivatives were achieved by one-pot, two-component condensation of an aromatic aldehydes and barbituric acids in the presence of TiO_2 NPs under solvent free condition by microwave irradiation gives excellent yields of product. In our initial study on the efficiency of the titania nanocatalyst, benzaldehyde and barbituric acid were used as the model substrate. We carried out the reaction without any catalyst, but the product isolated gave poor yield (25 %). In optimizing the reaction conditions, the amount of catalyst was the major factor. The model reaction was studied using 5, 10, 15, 20 and 25 mol % of a reaction of benzaldehyde. The results revealed that best yield was obtained by using 100mg catalyst. With increase in the catalyst concentration, the yield of the desired product was found to be constant. Therefore, the catalyst plays a crucial role in the success of the reaction in term of yields of the product. The results obtained have summarized in Table 1. It is evident that the aromatic aldehydes carrying electron-donating or electron withdrawing groups reacted smoothly to produce high yield of products. The results with different aromatic aldehydes are summarized in Table 1.

Product	Reactant	Time (min)	Yield (%)	Melting Point (°C)	
				Found	Reported[12-14]
3a	C_6H_5	10	94	264-266	253-265
3b	4-ClC_6H_4	10	89	298-299	298
3c	2-ClC_6H_4	15	89	250-252	253-255
3d	4-$NO_2C_6H_4$	12	94	268-270	272-274
3e	3-$NO_2C_6H_4$	10	90	230-231	231-233
3f	4-$CH_3C_6H_4$	15	85	290-291	297-298
3g	2,4-$Cl_2C_6H_3$	15	88	268-270	269-270
3h	4-$OCH_3C_6H_4$	15	90	296-298	298-299

Table 1: Synthesis of 5-arylidine barbituric acid catalysed by TiO_2 NPs

Entry	Amount of Catalyst (mol %)	Yield (%)
1	No catalyst	25

2	5	38
3	10	82
4	15	94
5	20	95
6	25	95

Table 2: Optimizations of amount of TiO_2 NPs

In order to investigate the reusability of the catalyst, 15 mol % TiO_2 nanoparticles were used for condensation of benzaldehyde and barbituric acid. The catalyst was recovered by simple work-up using the reaction mixture was stirred until complete dissolution of product in ethyl acetate. The resulting solution was centrifuged for 5 min. The ethyl acetate solution was collected by simple decantation. The catalyst was washed with ethanol for 2-3 times. Then dried catalyst reused in same reaction for over four successive reaction corresponding yields for each cycle were mentioned in Table 2.

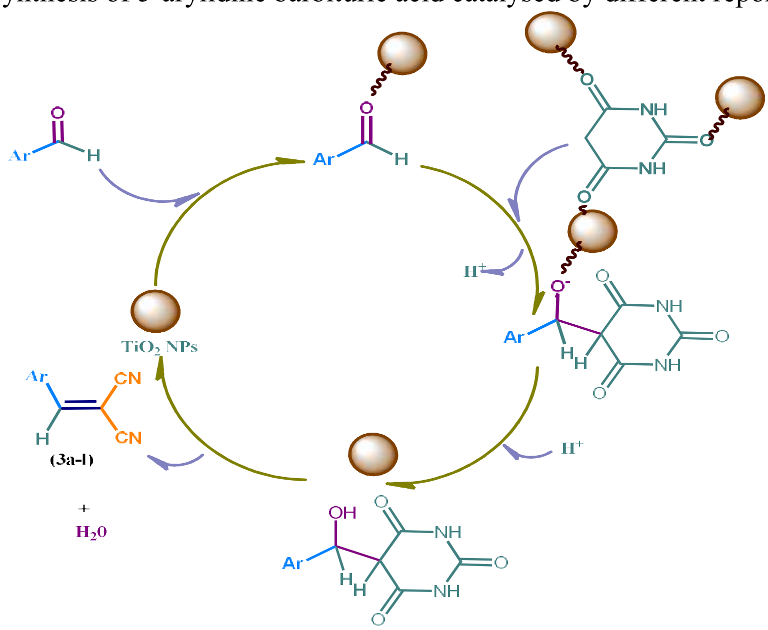
To compare the merits of our work to the other reported procedure; the results of the synthesis of arylidene barbituric acid derivatives in the presence of different reported catalysts with respect to time and yield of the product are listed in Table 3. These results show that our catalyst TiO_2 nanoparticles are more stable in air, nontoxic, give good yield in short time than other catalysts and there is no use of any hazardous solvent.

Run	Yield (%)	Recovery of TiO_2 NPs (%)
1	94	90
2	90	88
3	88	85
4	86	80

Table 3: Reusability of the TiO_2 nanoparticles

Sr. No.	Catalyst	Reaction condition	Yield (%)
1	NH_2SO_3H	Grinding/10 min	47
2	KSF clay	MW. 560 W/7min	70
3	PVPNi NPs	Ethylene glycol, 50° C/ 10-15 min	91
4	CuO NPs	Solvent free/ R.T./ 7 min	95
5	TiO_2 NPs	Solvent free/ MW. 340 W/10 min	94

Table 4: Synthesis of 5-arylidine barbituric acid catalysed by different reported catalyst



Scheme 2: The proposed mechanism for 5-arylidine barbituric acid catalysed by TiO_2 NPs

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Conceivable mechanisms for the formation of the products (3a-l) have been shown in Scheme 2. The more important is that TiO_2 NPs facilitate the Knoevenagel-type coupling by coordinated to the oxygen of carbonyl groups. On the other hand, Ni NPs can activate methylene compounds *i.e.* malononitrile so that deprotonation of the C-H bond occurs. As a result Knoevenagel condensation proceeds by activation of reactants by NPs.

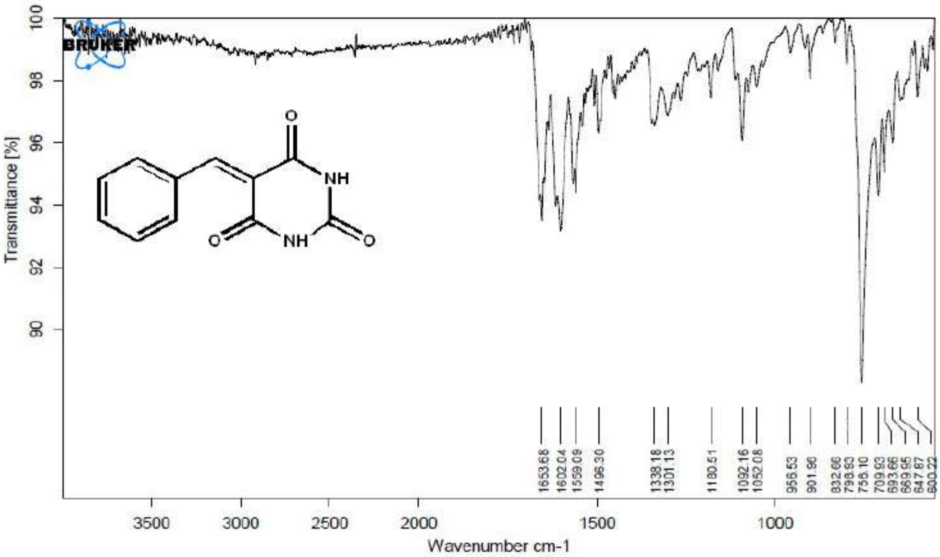
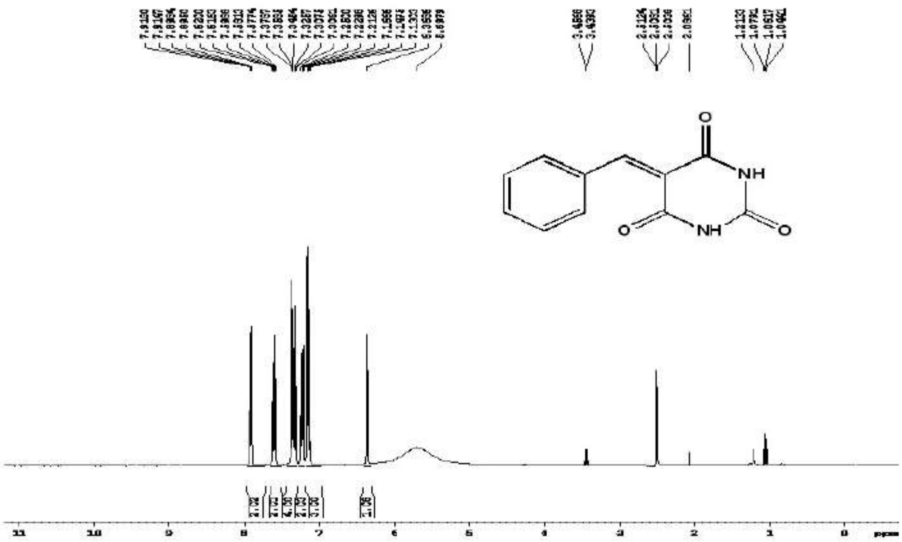


Figure 1: FTIR spectra of spectra of 5-Benzylidene barbituric acid (Table 1,



3a)

Figure 2: ^{1}H NMR spectra of 5-Benzylidene barbituric acid (Table 1, 3a)

Result & Discussion:

In Present work, TiO_2 nanoparticles were used as catalyst for the solvent free green synthesis of 5-arylidine barbituric acid and its derivatives. The TiO_2 nanoparticles were found to be most efficient catalyst being inexpensive, stable, can be recycled and reused for three cycles without loss of its activity. The obtained products from the catalytical application of nanoparticles were characterized by various spectroscopy techniques such as ^{1}H NMR, FTIR and Mass analyses and then compared their melting point with authentic samples in the literature.

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Digital Economy In India: Opportunities And Challenges

Dr. Kapil Jamnadas Fulwani Assistant Professor, D.R.B. Sindhu Mahavidyalaya,Nagpur
Dr. Anand Thadani Associate Professor, D.R.B. Sindhu Mahavidyalaya, Nagpur
Dr. Mukesh Kaushik Assistant Professor, D.R.B. Sindhu Mahavidyalaya, Nagpur

Abstract:

As the global economy is going digital, the scenario of the job market in the country and the world is also changing. There will be many jobs in the future whose names we haven't even heard about. New employment opportunities are increasing rapidly in India due to digitization. In this, due to automation, robotics, and artificial intelligence across the world, where jobs are decreasing in many areas, jobs are increasing in the digital economy. In five to ten years, when there will be a crisis of skilled labor force in the world, India will have a surplus number of the skilled labor force. In such a situation, India will be able to take advantage by sending a large number of the skilled labor force to many developed and many developing countries of the world. The Digital India program aims to transform the country into a digitally empowered society and knowledge economy. The objective of this research paper is to study the opportunities and challenges of the digital economy in India.

Keywords: Digital Economy, Digital India Programme, Electronics and Information Technology, Artificial Intelligence, Digitization, Digital Talent, Digital Skills

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

- To study the opportunities of the digital economy in India.
- To study the challenges of the digital economy in India.
- To study theimpact ofdigitally empowered society on the Indian Economy.

Introduction:

The Digital India program of the Government of India has promoted financial inclusion as well as the use of digital infrastructure. The plan to provide countrywideentree to digital infrastructure including high-speed Wi-Fi has given a boost to the digital economy in India. One of the notable reforms under the Digital India program is the Government e-Marketplace, a portal for government procurement, where MSMEs are facilitated to participate in procurement activities. The second phase of the digital economy is the growth of electronic and mobile commerce in India. The technologically savvy young generation finds online shopping to be the easiest way to purchase items. This has led to the extension of e-commerce and m-commerce in India. The amount of data increases at each level in the digital economy.

Our economy is going through a phase of understanding and analyzing such data. Keeping this in view, the Government of India has launched its own open data portal where data is available for analysis. Given the ever-increasing volume and strategic importance of data for the digital economy, the government is helping to provide training and research in the area of data analytics. In today's digital age, data privacy and equal access to the Internet are like clean air or clean drinking water. It has become a central pillar of the socio-economic and political dynamism of society. It would be better in the interest of the public that this pillar should be protected through laws as a collective right and the big data giants who have Big Data should be made accountable.

The Covid-19 pandemic and the crisis it has created have acted as a catalyst in the use of technology across the world. Many such areas which were till now untouched by technology and for which it was believed that it is not possible to complete work in these areas without the presence of people or human intervention have now reached online with the help of technology. For example, in times when physical courts were not possible, legal and court proceedings were moved online and there were successful attempts by judges to adapt themselves to online mediums for court hearings. Interestingly, many such areas will continue to adopt a hybrid form, that is, characteristics of online and physical life, in the post-pandemic days.

As a start, the Government of India has taken the initiative to benefit tech businesses along with other sectors on the technology front by taking into account the changes, responses, and needs coming out in this era of a pandemic. Keeping in mind the government's determination to make the Start-up India Action Plan a success, the government has announced an extension of the 'tax holiday' period for start-up companies. A 'tax holiday' is a temporarily fixed period during which the government removes tax on certain goods. Apart from this, the time limit for start-ups has also been extended by one more year regarding exemption on capital investment. The proposed National Research Foundation with an outlay of Rs 50,000 crore over the next five years has also included data-driven businesses in the list of national-priority businesses.

Digital Economy in India: Opportunities and Challenges:

Digital marketing in India seems to be growing. There is no doubt that Jan Dhan bank accounts, people getting data based on Aadhaar, digital identity, and Direct Benefit Allocation (DBT) are based on intent for digital industrialization. Maximum promotion of digitization for government services in the country, more than 41 crore Jan Dhan benefits, increasing e-commerce, increasing e-education, increasing e-entertainment, increasing work-from-home, an ever-increasing number of users of internet, mobile, and data Packages, the confirmation of both are the main reasons for the growth of the digital industry in India.

According to a report by the World Economic Platform (WEF), investment in 'upskilling' can add US$ 6.5 billion to the global economy and US$ 570 billion to the Indian industry by 2030. The concept of digital talent stems from a digital-first personality, which includes hard digital mapping such as data analysis, and soft digital engagement such as 'storytelling' and 'comfort with ambiguity'. When an engineer writes code sitting in a bus cabin, he is not getting old anymore. The most important contribution a Data Scientist can make today is 'Storytelling'.

The digital industry is being considered a revolution. Global governments, states, and countries are working in this direction at their respective levels. For this, indigenization, illegal base design, drawings and projections, human resources, data sovereignty, and other issues are key. India is also giving proof of being a conceptual nation. She is preparing for the global level. The government has started planning and programming on strategic strategy using Indian intelligence. The government has detected theft of data of some mobile apps available on the network and iOS platform by various thresholds and after receiving a share of data of maintenance and users of some mobile apps available on other servers inexplicably located outside India. Has been banned. At the same time, promotion programs have been started to promote indigenous mobile apps. The new government is experimenting with entrepreneurship to further engage Indian enterprise. The government has started working towards encouraging youth, indigenization in the technology sector, and ditching the concept of data sovereignty.

Due to automation, robotics, and artificial intelligence, under the digital industry, the country is seen taking advantage of employment opportunities from every corner of the new world. Along with this, the number of temporary and contract workers is also increasing rapidly. According to the Commission's India's Booming Gig and Platform Report-2022, there are currently about 77 lakh gig workers in the country. Most of the gig workers are engaged in the ongoing, trade, sales, transport, construction insurance, and employment sectors. According to the report, by the year 2029-30, about 2.35 crore workers will join the industry in India. In such a situation, employment prospects can be attracted in this sector by ensuring the social security of gig workers and their relatives. Keeping in mind the employment potential in the new digital industry, the government will make every effort to equip the country's new generation with skills in AI, cloud jobs, machine learning, and other new digital skills, English with good computer proficiency.

53% of Indian businesses lost new jobs in 2019 due to a lack of digital spending. Thus, the shortage of digital skills is one of the major stakes at present. One of the major circumstances is also that our best-trained people do not work in our country rather they migrate to other countries for opportunities. This is known as the 'brain drain' or mass exodus of skilled workers from India. The number of such private conglomerates is high, the quality of living in a day is quite poor and they are operated mainly for personal profit. These colleges do not promote research and development on their campus.

People working in technology sectors in India are not given adequate remuneration. India is one of the few countries, where after graduation in engineering, often talented students also study MBA to go into the field of marketing or management. Inequality is growing in the country and rural and urban distress is also growing. Migration is rising, real estate prices are declining, spending is rising, and wages have remained stagnant or stagnant. All these difficulties are not new but have been there for some time.

A large part of the country's population is still behind in terms of the digital banking system. That's why he needs to move towards digital banking. A large number of people in rural areas do not have a bank account, mobile phones with internet facilities, or credit-debit card facilities for digital payments. That's why the campaign to increase such facilities will have to be intensified. At the same time, a large rural population has to be motivated towards digital payment technologies for financial transactions. Since a large number of villagers remain distrustful of online transactions due to the increasing incidence of online fraud at the time of digital payments, the government has to take steps to strengthen cyber security to prevent online fraud. A lot remains to be done in terms of mobile broadband speed to promote digitization.

There is currently no law in India that can prevent apps from sharing data with data brokers or data analytics firms. But a recent decision of the Supreme Court can be used as the basis for making an ideal data protection law. All interference with the right to privacy must be essential and equivalent. Apart from this, keeping an eye on the implementation of the General Data Protection Regulation of the European Union while enacting data protection laws in the country, B.N. The recommendations of the Srikrishna Committee report should also be taken into consideration. This law should be such that even the giants of digital technology can follow the norms of accountability. Apart from this, the government will also have to remove various misconceptions about the Aadhaar number.

Keeping in mind the changing scenario in the country, the digital economy can be divided into three main components. In today's digital age, data privacy and equal access to the Internet are like clean air or clean drinking water. It has become a central pillar of the socio-economic and political dynamism of society. It would be better in the interest of the public that this pillar should be protected through laws as a collective right and the big data giants who have Big Data should be made accountable.

India's digital talent often focuses more on salary packages and ignores innovation. It is important to have a long-term focus on the National Education Policy and it is also necessary to develop the right approach toward it. Continuous learning, skill credits, world-class academic innovation, experiential learning, faculty training – all these issues need to be addressed in the right way. Digital capabilities must be built even in smaller towns; bring more women into the workforce with hybrid work standards, And vocational education imparted by industrial training institutes and polytechnic institutes should be improved. Corporate social responsibility funding provided by the industry can be availed for these programs.

In the early days of the technology sector, tax incentives played a significant role in building the global footprint of multinational corporations in India. We must now create schemes that encourage skilling not only for their own needs but for the entire ecosystem. To catalyze the next phase of growth and innovation, India should not only consider strategies targeted at growing domestic talent but also work towards attracting the best global talent. For this, along with constant investment in re-skilling, there is also essential to adopt a culture that promotes skill development.

Building a strong digital talent ecosystem will allow us to be future-ready and take advantage of the chances of the digital future. Apprenticeship programs should be used on a large scale, adopting innovative learning models, not only for certification but also for assessment. Invest in building world-class 'free content' that anyone can take advantage of and that aligns with a trusted system of certification. It will be necessary to remove all obstacles to the development of skills among people. It is necessary to do away with unnecessary admission qualifications and eligibility criteria. There should be no blocks to entry, but the exit procedure should be quality-controlled.

Now India, with the world's largest youth population, has to equip a large number of youth with new technical employability skills towards the digital age. Good English, computer skills, communication skills, mass communication, and advertising skills with specialization in the digital economy are beneficial for building a future in the digital world. Apart from this, good knowledge of web design, social media, web-related software, analytical skills, and research skills are also necessary for terms of technical skills. There is a need to take advantage of the employment opportunities that are being created for the new generation of the country amid the digital economy. Good online education has become the need of the hour today. According to the National Association of Software and Services Companies, India is completely in a position of advantage in the digital economy. But in the post-corona world, the existing IT talent will have to be re-skilled with new technologies.

Conclusion:

Instead of assessing short-term benefits due to specific digital markets, there is a need to assess the potential long-term costs arising from barriers to entry in a new competitive digital market. To remain relevant in this digital age, economic policies themselves must be digitization oriented. India must protect its startups from being owned by foreign brands and this can easily be done by allowing preferential shares. Its high-time data should be monetized on the part of data subjects, paying royalties to data subjects for using their data. The government should make policies that can monitor the anti-competitive policies of these digital companies. Now India, which has the largest youth population in the world, will have to equip a large number of youth with new technical employability skills towards the digital age. To build a future in the digital world, there will be skill development related to this sector with expertise in the digital economy. Apart from this, good knowledge of web design, social media, web-related software, analytical skills, and research skills are also necessary for terms of technical skills.

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A Study of Blockchain Architecture and Decentralized System

Mansi Nagalkar

, Assistant Professor, Department of Computer Science, S.S Maniar College of Computer and Management, Nagpur, RTMNU, Ph.no-9763782234.,mansi.nagalkar@gmail.com

Abstract

Blockchain technology has emerged as a new paradigm to build decentralized systems which do not require a central authority. It is most popular for enabling Bitcoin and other crypto-currencies. Although, blockchain applications extent beyond Finance, and recently it has been applied to decentralized governance. Blockchain assures to provide a distributed and decentralized means of trust belief among suspicious users. There is a shift from decentrality to centrality system which is a most accepted. Blockchain system, which is used in Bitcoin. This shift has enthused researchers to recognize the cause of decentrality, quantify decentrality and analyze the use of decentrality. In this work, there is a holistic approach to identify and quantify decentrality in Blockchain based systems. Blockchain facilitate "Decentralized Autonomous Organizations" (DAOs) have arrived as a new form of collective governance, in which communities may systematize themselves relying on decentralized infrastructure.

Keywords

Blockchain, DAO, open collaboration, online communities, governance, peer-to-peer; bitcoin; next generation networks

Introduction

Blockchain is a structure of database storage that is non centralized, dependable, and hard to use for deceptive purposes. Bitcoin, on the other hand, is a form of digital currency that uses a Blockchain public ledger to make transactions across peer to peer networks. Bitcoin is just one of the financial applications that uses Blockchain technology. The other applications of blockchain are smart contract and hyperledger.

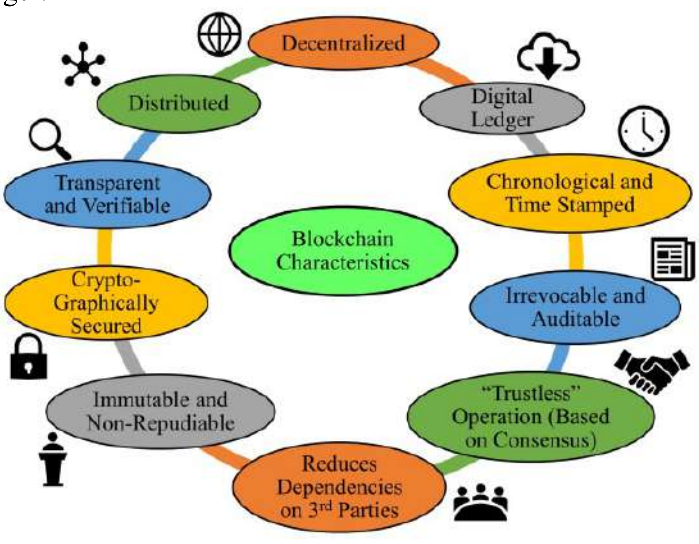

Fig. 1 Pivotal Characteristics of Blockchain

At the present time, two types of blockchain are considered:

1. Private Blockchain

A private blockchain has access control and operates under a special organization. Participants need to be invited, and existing participants may decide on future entrants. Formerly an entity has connected the network, it will help in maintaining the blockchain in a decentralized manner. In addition, private blockchains rely on internal participants' honesty to verify transactions, which saves the efforts and potential wastage of mathematical Proof of Work as the means of maintaining security. Overall, private blockchains are more efficient in terms of scalability and compliance. MultiChain which is an example of private blockchains.[11]

2. Public blockchain

A blockchain is called public if each participants can read it and use it to carry out transactions But also if everyone can participate in the process of creating the consensus. There is therefore No central register, nor a trusted third party. Public blockchain works with a Coin or token.

Centralized System

In centralized systems, users rely on authority to carry on transactions. Like, in banks the customers rely on banking system which adjust customer's account balances after making transactions. Fig.2 . In centralized system, the central authority can alter entire system by directly altering and updating databases at the back-end. Centralized services disallow distribution of authority and thus are single services provider. The centralized system is also a single point of failure which means that if the service provider crashes, it affects the whole system and the stakeholders are ultimately affected [12].

Decentrality

Decentralized systems are a subset of distributed systems where multiple authorities control different components and no authority is fully trusted by all Fig 2 . Decentrality is a property related to the control over the system. Better decentralization means higher resistance against censorship and tampering. The foundation of centralized systems is the absence of mutual trust among nodes or users, so they need a trusted intermediary to cooperate with each other. The problem with centralized systems is that they lack transparency, and therefore allow for single point of failure, censorship and abuse of power. Hence, there is a need for decentralized systems [1].

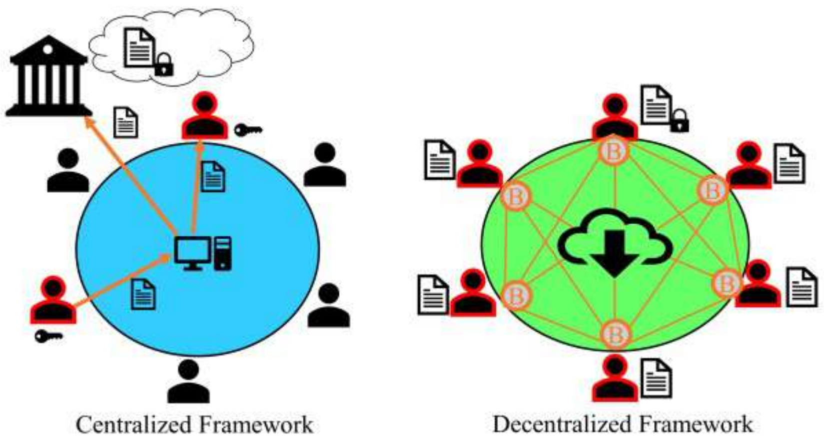

Fig.2 Centralized systems with intermediaries versus decentralized blockchain systems

The distributed computing layer ensures local access to data, fault tolerance, immutability, privacy, authenticity, and security for the transaction data. Immutability is the blockchain property that does not permit modification of the transaction records once updated in the ledger. The blockchain network uses a consensus protocol to reach an conformity regarding the order of the transactions in the network, the update of the ledger, and the selection of a miner for the next block generation. In addition, this layer is responsible for user authentication by using an encryption technique and for data privacy via a hashing technique. The application layer is the business logic for digital asset transactions and the execution of smart contracts. An application developed on top of a blockchain network can be accessed by the clients using the platform layer. The blockchain layers architecture have the following characteristics. As shown in Fig.3 Overview of Blockchain.

1. Decentralization: The transactions in blockchain are processed and validated by the consensus of most network nodes. They are replicated on the nodes in a ledger. This banish the need for an intermediary to share and maintain the transactions data .

2. Immutability: The transactions in blockchain are stored into blocks. Each block in the chain is linked to the previous block using a cryptographic hash function. Any effort to modify the content of

a block will affect the subsequent blocks in the chain. Consequently, a malicious attacker needs to change all the succeeding blocks in the chain to modify a particular block, which is computationally difficult because the chained blocks are replicated over multiple nodes.

3.Transparency: The ledger is only updated when most of the nodes reach a consensus. Network changes are publicly noticeable ensuring transparency and security.

4. Traceability: The distributed and transparent nature of blockchain makes it easier to trace any transaction event. Every update in the state of an asset can be tracked down back to its origin. This helps in making the network more secure, efficient and transparent.

5. Trustless: Blockchain allows transaction of assets between unknown parties who do not trust each other. Distribution of the ledger across several nodes in the network and updating this ledger via a consensus ensures the validity of transactions in an untrusted environment.[13]

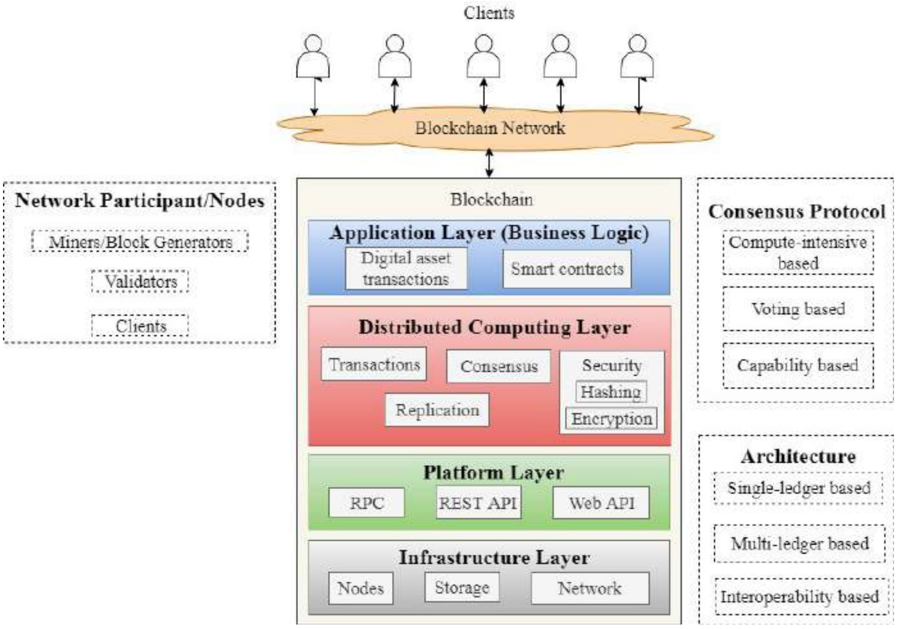

Fig.3 Overview of Blockchain

Limitations of blockchain

Blockchain is not a fully decentralized system by design. It is considered as a partially decentralized system .There are simulations done on Blockchain where results have shown natural pressures of forming centralized nodes within the network . This slight centralization leads to a bigger picture of limitations and flaws inherent with the current second-generation of Blockchains. While Blockchain is a prominent emerging technology which has proved its efficiency in several areas, it also comes with its own set of challenges. These limitations and challenges include: Scalability ,Performance, Privacy, Mining issue.[14]

Blockchain testing

Recently different kinds of blockchains appear and over 700 cryptocurrencies are listed in up to now. However, some developers might falsify their blockchain performance to attract investors driven by the huge profit. Besides that, when users want to combine blockchain into business, they have to know which blockchain fits their requirements. So blockchain testing mechanism needs to be in place to test different blockchains. Blockchain testing could be separated into two phases:

Standardization phase and Testing phase. In standardization phase, all criteria have to be made and agreed. When a blockchain is born, it could be tested with the agreed criteria to valid if the blockchain works fine as developers claim. As for testing phase, blockchain testing needs to be performed with different criteria. For example, an user who is in charge of online retail business cares about the throughput of the blockchain, so the examination needs to test the average time from a user send a transaction to the transaction is packed into the blockchain, capacity for a blockchain block and etc.[15]

Applications

Data in the distributed public ledger is immune to any tampering as it is highly encrypted using advanced cryptography, hence the technology finds applications in cyber security. It eliminates the usage of centralized devices in the IoT and other forms of networking. Therefore, devices connected could update software, manage bugs and communicated directly. The technology provides a new way of managing trust and can be effectively applied in insurance and domains like finance .Various applications of blockchain is presented in Figure 4 [9]. It eliminates the involvement of a third party; hence it is finding effective utilization in private transport and ride-sharing. It is envisioned that the blockchain can have significant applications in smart healthcare with the Internet of Medical Things (IoMT) or the Internet of Health Things (IoHT) to provide security, privacy, and effective insurance processing [10].

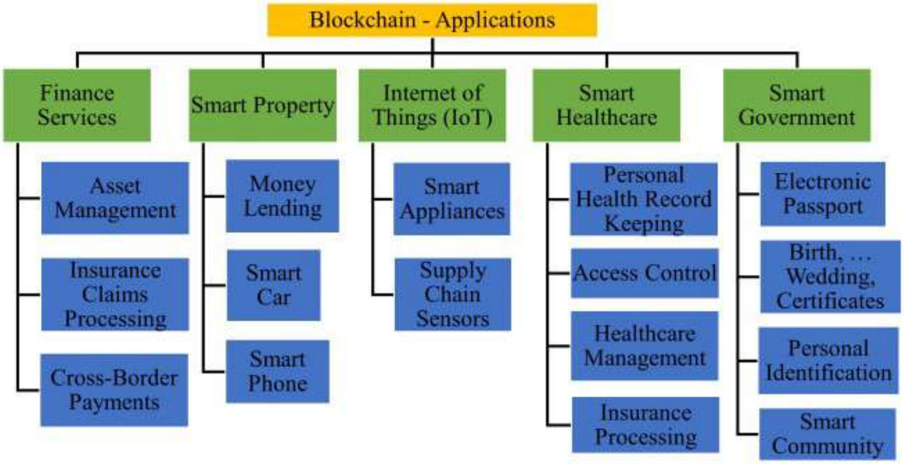

Fig.4 Potential Applications of Blockchain

Conclusion

There is continuous susceptible threats to integrity of personal sensitive data and other expensive resources in the hands of third parties. There are more chances that resources are misused. Best practices to effectively execute processes are more vital and essential to address issues during interoperability. The blockchain is receiving widespread acceptance and deployment throughout where users do not trust third party and are always aware of data collection and its usage. Similarly, laws and regulations are enforced automatically through programming and the computationally tamper proof ledger acts as legal evidence for processing data. Through the combination of various computer technologies, blockchain has formed a new technology architecture, which realizes the decentralized secure storage systems. Compared with the traditional centralized models, the decentralized models of blockchain can solve the trust-lacking problems in the traditional centralized institutions, and improve the data security. As investigated by the above studies, blockchain will contribute to improving the solutions in multiple fields such as the IoT, smart city and supply chain systems. It will also bring new opportunities and challenges for the development of various industries in the future. Furthermore, we listed some challenges and problems that would hinder blockchain development and summarized some existing approaches for solving these problems. Some possible future directions are also proposed. Nowadays blockchain based applications are springing up and we plan to conduct in-depth investigations on blockchain-based applications in the future.

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Challenges And Opportunities Of Digital Currency In Select Countries

S.Nagamani

Assistant Professor of Commerce,Vivekananda Govt. Degree College, Vidyanagar, Hyderabad

ABSTRACT

Digital money (DC) is the digital representation of value. The public sector banks can issue digital money called **Central Bank Digital Currency (CBDC)** --- essentially a digital version of cash that can be stored and transferred using an internet or mobile application. The private sector banks can also issue digital money. These are fully backed with very safe and liquid assets and are usually referred to as **e-money.** Digital currency, a form of virtual currency, developed with the advancement of technology completely based on embedded de-centralized payment mechanism, uses distributed ledger for its processing. The Bahamas is the first country in the world with a central bank digital currency (a digital form of a country's currency) called the "sand dollar, "which increase financial inclusion for inhabitants spread out across the country's 700 islands, where banking services such as cash machines are not always available. Introduction of CBDC followed by Nigeria which rolled out eNaira in 2020, then by china as it introduced a pilot currency e-CNY in April, 2020. Other countries are not far behind. The most ambitious project is being piloted by China's central bank. The success of e-Rnminbi experiment could boost digitalization, innovation and financial inclusion. in one of the world's largest and most vibrant economies, possibly encouraging other countries to follow suit.

Objectives: The basic objective of the paper is to trace and review the Global trends in Digital Currency introduction and Circulation (payments & Receipts), in Retail and Wholesale transactions. However, the Paper is guided by the following specific objectives: i)To present the Global CBDC projects across the developing Nations along with their state policy Motivational aspects. ii)To trace the growth, progress and trends of Digital Currency across the Globe. iii)To evaluate the Digital Currency impact on the Indian economy in relation to selected Global Economies. In Emerging Market Economies (EME), innovations in technologies of payment ecosystem at global level must be carefully weighed against their impact on financial development and on currency substitution. Since this is a systemic and global issue, international cooperation is of the essence. In Argentina, recent regulatory initiatives, such as Transferences' 3.0, have enabled the development of an efficient and secure infrastructure that could be leveraged to further improve access to and use of payment services by the public. The main challenges for financial inclusion stem from two sources: inadequate broadband coverage and financial illiteracy. The Ministry of Finance, through RBI has launched Digital Currency in India on 1st Nov,2022.

Key words: 1) CBDC; 2)EME's 3)e-CNY 4)PPI'

Introduction

Digital money(DC) is the digital representation of value. The public sector banks can issue digital money called **Central Bank Digital Currency (CBDC)**--- essentially a digital version of cash that can be stored and transferred using an internet or mobile application. The private sector banks can also issue digital money. Some forms of can be redeemed for cash at a fixed face value. These are fully backed with very safe and liquid assets and are usually referred to as **e-money**

Digital currency, a form of virtual currency, developed with the advancement of technology completely based on embedded de-centralized payment mechanism, uses distributed ledger for its processing. This digital currency already has been creating an impact globally, due to which there has been an adverse impact in the past- which had led to disruption in the business models, system and also had created an opportunity for private sector banks. The main role of this virtual currency will be beneficial for the retail payment services as it has got the potential to facilitate payment transaction. Since this is in decentralized form, due to this, it is created a sense of insecurity for the government, which has raised to different policy issues for the central banks and the higher authorities

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Emerging markets lead the way

The Bahamas is the first country in the world with a central bank digital currency (a digital form of a country's currency) called the "sand dollar, "which increase financial inclusion for inhabitants spread out across the country's 700 islands, where banking services such as cash machines are not always available. Introduction of CBDC followed by Nigeria which rolled out eNaira in 2020, then by china as it introduced a pilot currency e-CNY in April, 2020. Other countries are not far behind. The most ambitious project is being piloted by China's central bank.The success of e-Rnminbi experiment, could boost digitalization, innovation and financial inclusion in one of the world's largest and most vibrant economies, possibly encouraging other countries to follow suit.

Review of Literature :

1. In the current scenario digital currency is not the form of currency which we use for our daily transactions, as it has not been globally accepted but still there are some countries which have been using some form of digital currency, such as; Bitcoin, Litecoin and many others. Since it is not widely accepted because of a series of risks and challenges which could limit its future growth. As of now it has been found that many are looking towards using these forms of currency, because they can bypass the third party involvement.(Singh & Singh, 2018).
2. The DC refers to the No-use or low use of paper currency in Wholesale and Retail transactions related to the current receipts and currency payments. Morabito & Morabito (2017) have shown the traditional way of transaction starting with cash and followed by electronic payments. Now, the same by using D C based on a distributed ledger system. In electronic payments, Ctrl+C plays a dominant role between the Buyers and Sellers. Similarly, when a transaction takes place with a Central Authority, it happens through a Digital Book Keeper and through Electronic communication system.
3. Nitin Bhuta(2022) in "Central Bank Digital Currency (CBDC)- a Curtail Raiser, Catalyst" discussed about advantages and disadvantages and challenges, threats and concerns of CBDC.
4. Cem Dilmega(july,17,2022) in article titled "Central Bank Digital Currency (CBDC): In-Depth Guide" presented pros and cons of CBDC, differences between CBDC and crypto currencies and impact CBDC on crypto currencies.
5. Peterson K. Ozili "Central bank digital currency research around the World: a review of literature" (January 2022) This paper reviews the recent advances in central bank digital currency research in a way that would help researchers, policy makers and practitioners to take a closer look at central bank digital currency (CBDC). The review shows a general consensus that a central bank digital currency is a liability of the issuing central bank and it has cash-like attributes.
6. In her Budget Speech on February 1, 2022, Finance Minister Nirmala Sitharaman announced the Indian government's commitment to issuing a digital rupee. The relevant text was short and sweet, running three sentences in its entirety. "Introduction of Central Bank Digital Currency" (CBDC) will give a big boost to the digital economy. Digital currency will also lead to a more efficient and cheaper currency management system. It is, therefore, proposed and issued Digital Rupee, using blockchain and other technologies, to be managed by the Reserve Bank of India starting in 2022-23."

The volume of CBDC research has grown in the last five years. The increase in CBDC research is due to rising digital payments innovations and a number of other factors, including innovations in digital finance, the rise in blockchain-enabled distributed ledger technologies, the dominance of cryptocurrency in the digital currency space, and the need to curb illicit cryptocurrency-induced criminal activities. Therefore the present study is taken up to present CBDC scenario across the globe and in India.

Objectives:The basic objective of the paper is to trace and review the Global trends in Digital Currency introduction and Circulation (payments & Receipts), in Retail and Wholesale transactions. However, the Paper is guided by the following specific objectives:

i. To present the Global CBDC projects across the developing Nations along with their state policy Motivational aspects.
ii. To trace the growth, progress and trends of Digital Currency across the Globe.
iii. To evaluate the Digital Currency impact on the Indian economy in relation to selected Global Economies.

Scope of the paper:

The present paper is an exploratory one and focus is to present conditions feasible to introduce the Digital currency, trends and progress along with growth in India and across the globe. Further, the paper is dependent upon the secondary Data only.

Origin of CBDCs in Developing Market Economies:

In recent years, in both Advanced Economies (AEs) and Emerging Market Economies (EMEs), central banks have become increasingly engaged in projects related to central bank digital currencies (CBDCs) – i.e digital money that is denominated in the national unit of account and is a liability of the central bank (BIS (2021)). Several countries have progressed to the pilot or proof-of-concept stage (eg. Hong Kong SAR, Saudi Arabia, Thailand, the United Arab Emiratis (UAE)). A few are close to launching (eg China's eCNY), while some do not see a pressing need for a CBDC in the near future (eg Poland & Singapore).Table 1: summarizes the initiation of CBDC development in each country, the latest publicly announced state of development, and target dates for next steps, if any. India's initial expression of interest came relatively late, in 2019; only Nigeria and the Philippines were later. In announcing the intent to launch a pilot project in December 2021, India is more or less in line, temporally, with the other countries, which made similar announcements slightly earlier or concurrently.

Table 1: Timing of Publicly Signalled Project Development among select Countries

Country Name	Initially Announced State of Development	Current Known State of Development	Target Date for Next Developments
India	Interest (July, 2019)	Intended Pilot (December, 2021)	Pilot Finished and CBDC launched on 1st Nov,2022.
Philippines	Initial Research (July, 2020)	Design Research (May 2021)	No Public Target Dates
Morocco	Initial Discussions (November, 2017)	Initial Research (February 2021)	No Public Target Dates
Ghana	Feasibility Research (November, 2018)	Design Research (October, 2021)	No Public Target Dates
Nigeria	Announce Pilot (June, 2021)	Issue CBDC Pilot (October, 2021)	No Public Target Dates
Sweden	Initial Discussions (November, 2016)	Announce Pilot (May, 2021)	Issue CBDC Pilot (2026)
Taiwan	Announce Interest (March, 2018)	Design Research (June, 2020)	No Public Target Dates
Norway	Feasibility Research (May, 2018)	Application Research (April, 2021)	No Public Target Dates
Singapore	Initial Research (November, 2016)	Design Research (November, 2021)	No Public Target Dates
Brazil	Initial Research (December, 2018)	Announce Pilot (November, 2021)	Issue CBDC Pilot (2022/2023)
Russia	Initial Discussions (October, 2017)	Announce Pilot (June 2021)	Issue, Expand Pilot (2022)
China	Initial Research (January, 2014)	Expanded Pilot (December, 2021)	Expand Pilot Further (2022)

South Africa	Feasibility Research (June, 2016)	Announce Pilot (September, 2021)	Issue CBDC Pilot (2022)
Turkey	Research Feasibility (March, 2018)	Announce Pilot (August, 2021)	No Public Target Dates
Ukraine	Research Feasibility (March, 2016)	Design Research (August, 2021)	Issue CBDC (2025)
Mauritius	Initial Discussions (March, 2019)	Announce Pilot (May, 2021)	No Public Target Dates
Thailand	Research Feasibility (August, 2018)	Announce Pilot (October, 2021)	No Public Target Dates

Note: Initial and current states of development are coded at the general level of: (i) interest, (ii) research, (iii) development, (iv) pilot, (v) issuance, and (vi) terminating CBDC projects. The states of development listed in the table above are sub-components of each major progress code, which typically involve specificity regarding the type of research and development, or stage of pilot.

Drivers for CBDC issuance

The top motivations for CBDC issuance vary across the Emerging Market Economies (EME), with no single factor dominating, as the survey of Bureau of international standards (BIS) shows. Providing a cash-like digital means of payment, in light of reduced cash usage and an increase in private digital payment services, is the most common consideration. Boosting financial inclusion also ranks high. Other significant considerations include strengthening competition among payments service providers (PSPs), increasing efficiency and reducing the costs of financial services. Background papers suggest that these motivations are not mutually exclusive. Indeed, a majority of central banks consider many of these motivations as jointly important.

Drivers for issuing CBDC: As described in the CBDCs in emerging market economies by Sally Chen, Tirupam Goel, Han Qiu and Ilhyock Shim (BIS EMDG survey 2022.BIS Papers No 123 3) the motivations are:

1. Provide cash in digital form
2. Better financial inclusion
3. Increased competition
4. Programmable money
5. More effective monetary policy
6. Tackling AML, Tax Avoidance
7. Lower Cash distribution costs
8. Better privacy
9. Enabling P2P payments

Central bank engagement with CBDCs has increased globally. The survey of Emerging Market economies (EME) central banks uncovers their key motivations for CBDC issuance as well as primary concerns. Like their Advanced Economies (AE) counterparts, achieving greater payment system efficiency is at the heart of EME central banks' motivations (Boar et al (2021)). At the same time, EMEs place greater emphasis than AEs do on financial inclusion and are more concerned about cyber security risks, bank disintermediation, and cross-border spillovers.

Concerns related to CBDC issuance

A number of macroeconomic, financial and operational concerns are raised by central bank survey respondents in recently conducted survey by BIS researchers. A key concern relates to greater operational burdens – including maintaining system stability and cyber security,particularly in an increasingly digitalised system that calls for new regulatory and supervisory initiatives for privacy, protection and data management. The list of concerns further includes the possibility of CBDCs disintermediating banks and the attendant impact on financial stability. These concerns are relevant especially if the take-up of CBDCs is large. At the same time,

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central banks are also concerned about possible low user adoption, suggesting somedebate regarding the value added by CBDCs to consumers and businesses as presented below:

i) Architecture refers to the actor(s) liable for claims made in CBDC; this could take the form of direct accounts with central banks, more traditional (indirect) architectures intermediated by private banks, or a hybrid model. **ii**) Infrastructure refers to the nature of the technical ledger system that manages issuance and supply; this could take the form of distributed ledger technology, more conventional centralized ledgers, or a hybrid approach. **iii)** Access refers to the logic of how CBDC ownership and custody is recognized and validated; the BIS organizes this as either an account (identity based), token (bearer instrument), or hybrid of the two. **iv)** Inter linkage indicates whether a CBDC is designed to have cross-border interoperability; this is simply a binary.

CBDC Design Frame work

Hybrid architecture seems to be the most popular choice across various countries that have expressed a preference for a system operated directly by the central bank(Singapore) and for a system where the CBDC is a claim on an intermediary, not on the central bank(China).In terms of infrastructure, modalities for access (tokens versus accounts versus both), and inter linkages, the Reserve Bank of India in its conceptual notes on digital currency (2022) it suggested a hybrid architecture. (Reserve Bank of India, 2021, p. 5). Above facts reflect that there is no consensus, globally as well as nationally, about these aspects of a CBDC's design, as is evident in the table presented below.

Table 2: Design Preferences for CBDC Technology Publicly Announced by Countries

Country Name	Architecture	Infrastructure	Access	Interlinkages
India	Hybrid	-	-	-
Philippines	-	-	-	International
Morocco	-	-	-	-
Ghana	-	-	-	-
Nigeria	-	DecentralizedHybrid	-	-
Sweden		Centralized	-	None
Taiwan	-	-	-	-
Norway	Hybrid	Hybrid	-	International
Singapore	Direct	Hybrid	Hybrid	-
Brazil	Hybrid	Decentralized	Token	-
Russia	-	-	-	International
China	Indirect	Centralized	Hybrid	-
South Africa	-	-	Token	None
Turkey	Indirect	Decentralized	Hybrid	-
Ukraine	Hybrid	Decentralized	-	International
Mauritius	-	-	-	-
Thailand	Hybrid	Decentralized	Hybrid	International

Source:IMF and IBRD publications-2021

CBDC -The Global Scenario:

CBDC in its form is a nebulous concept emerging in the eco system of India as well as on the World Canvas. According to the survey published by BIS (Bureau of International Settlements), 86% of Global Apex Banks are exploring the options of introducing the CBDCs in their eco-systems and some apex banks are exploring its introduction on pilot project basis to the test the effectiveness and efficiency of introducing such CBDCs.

In a speech of By Kristalina Georgieva, IMF Managing Director, Atlantic Council, Washington, DC(Feb,9,2022), We have moved beyond conceptual discussions of CBDCs and we are now in the phase of experimentation. Central banks are rolling up their sleeves and familiarizing themselves with the bits and bytes of *digital* money. If CBDCs are designed prudently, they can potentially offer *more* resilience, *more* safety, *greater* availability, and *lower* costs than private forms of digital money. The move towards CBDCs is gaining momentum, driven by the ingenuity of Central Banks. Around **100 countries** are exploring CBDCs at one level or another. Some researching, some testing, and a few already distributing CBDC to the public. In the **Bahamas**, the *Sand Dollar*—the local CBDC—has been in circulation for more than a year. **Sweden's** *Riksbank* has developed a proof of concept and is exploring the technology and policy implications of CBDC. In **China**, the digital renminbi [called e-CNY,] continues to progress with **more than a hundred million** individual users and **billions of yuan** in transactions. And, just last month, the **Federal Reserve** issued a report that noted that *"a CBDC could fundamentally change the structure of the U.S. financial system."* The IMF is deeply involved in this issue, including through providing technical assistance to many members. An important role for the Fund is to promote exchange of experience and support the interoperability of CBDCs.

As a result of experimentation stage of CBDC of central banks, three major issues were prominently identified. i) N**o one size fits all**. There is no universal case for CBDCs because each economy is different. In some cases, a CBDC may be an important path to financial inclusion—for instance, where geography is an obstacle to physical banking. In others, a CBDC could provide an essential backup in the event that other payment instruments fail. One such case was when the Eastern Caribbean Central Bank extended its CBDC pilot to areas struck by a volcanic eruption last year. So, central banks should tailor plans to their specific circumstances and needs. ii) **Financial stability and privacy considerations are paramount to the design of CBDCs.** Central banks are committed to minimizing the impact of CBDCs on financial intermediation and credit provision. This is very important for the wheels of the economy to run smoothly. The countries we studied offer CBDCs that are not interest-bearing—which makes a CBDC useful, but not as attractive as a vehicle for savings as traditional bank deposits. We also saw in all three active CBDC projects—in the Bahamas, China, and the Eastern Caribbean Currency Union—that they placed limits on holdings of CBDCs, again, to prevent sudden outflows of bank deposits into CBDC. In many countries, privacy concerns are a potential deal breaker when it comes to CBDC legislation and adoption. iii) B**alance:** Introducing a CBDC is about finding the delicate balance between developments on the design front *and* on the policy front. Getting the design right calls for time and resources, and continuous learning from experience—including shared experiences across countries. In many cases, this will require close partnerships with private firms to successfully distribute CBDCs, build e-wallets, add features, and push the bounds of technology. Further, requires developing new legal frameworks, new regulations, and new case law. On both fronts, a CBDC also requires prudent planning to satisfy policy targets like financial inclusion, and avoid undesirable spillovers such as sudden capital outflows that could undermine financial stability. The success of a CBDC will depend on sufficient trust. And, in turn, any successful CBDC should continue to build trust in central banks.

The global scenario is presented in following points:

1. New technologies have changed the payment ecosystem at the global level. CBDCs, among other initiatives, have to be considered one of the many tools that central banks may use in order to improve means of payment and monetary policy implementation. In this context, the issuance of a CBDC is not a priority, at least in the short term.
2. The BIS paper 123(2022) discusses the development of a central bank digital currency (CBDC) by the Central Bank of Brazil (BCB). Considering specific features of the Brazilian payment system, the digital Brazilian real is shaping up as the main element of a platform for smart payments, adding to the facilities composing the Brazilian payment system, such as a real-time gross settlement service (available since 2002), e-money mainly available through payment service providers (since 2013), and an instant payment service (since 2020). The main challenges for financial inclusion in Brazil stem from two sources: inadequate broadband coverage and financial illiteracy.
3. The Central Bank of Chile (BCCh) eventually issued Retail Central Bank Digital Currency (CBDC). An Internal Working Group (WG) on CBDC is preparing a white paper scheduled for release in early 2022 which will assess and describe future steps on this matter. The BCCh established the WG with the objective of exploring and proposing a medium- to long-term strategy on digital payments in Chile. Currently, the WG has scoped the internal discussion on retail CBDC.

4. The development of China's e-CNY system aims to create a digital version of the Renminbi that meets the public's demand for cash in the digital economy era. The e-CNY system will support the development of retail payment infrastructures and improve payment system efficiency in parallel with digital economy developments in China.
5. The design aspects (return, convenience attributes) can be set, so that it substitutes mostly cash holdings, with a moderate impact on bank deposits and financial intermediation. In particular, the return on the CBDC could be calibrated for that purpose. The adoption of a CBDC could augment the effects of a run on bank deposits, requiring a strengthening of the LOLR facilities and processes. For the same reason, maintaining a solid prudential framework is essential to minimise the probability of a run. The threat of "digital dollarisation" from a foreign CBDC or a stable coin does not seem significant, as long as the credible low-inflation regime with exchange rate flexibility and a solid financial system is maintained.
6. In the Czech Republic, the quantity of cash in circulation is growing and its acceptance is ensured by relatively strict legal tender provisions. Therefore, it is possible to state that the problem of public access to cash is not relevant. Cash also performs the function of a fallback means of payment and the current payment infrastructure seems to be sufficient for the provision of electronic payments. The Czech Republic has a high-quality and well functioning instant payment system and, at the moment, it is more sensible to concentrate on additional improvements to the current infrastructure than on creating a brand-new system for a CBDC.
7.Hungary's Central Bank, the Magyar Nemzeti Bank (MNB), launched its first retail CBDC pilot project in September 2020 with a dual purpose: (i) to support digital financial inclusion of students; (ii) to gain hands-on experience on a potential operational model of a future CBDC system. When designing the Digital Student Safe pilot, we applied a seven-step decision-making structure that ensures a consistent conceptual framework appropriate to help design any future successful CBDC pilots or projects.

Digital Currency impact on Indian economy:

CBDC mainly facilitates payment system. Consumers use a variety of different means of payment: cash and coins, debit and credit cards for online and point of sale transactions. A CBDC would be safe and easy to use for transactions at a distance, unlike cash (no small consideration in an age of pandemics). It would be universally accepted for transactions within the country, in contrast to credit and debit cards, which require the merchant to have an electronic connection to the bank or other issuer.

Multiple banks and third-party e-money companies have introduced UPI-enabled mobile payment apps, allowing users to send and receive money between UPI-linked bank accounts. It can also interface with Pre-Paid Instruments (PPIs), smart cards, magnetic stripe cards and the like on which balances can be pre-loaded. As of early 2022, some 300 banks participated in the system. In its history to date, UPI has hosted some 70 billion transactions, some as small as one rupee, making it the world's largest real-time payment system by transactions. Further, NPCI (National payment Corporation of India) is testing a voice-based version for smart phone users that will work without an internet connection.

Table 1 shows how the number of commercial bank branches (per 100,000 adults) has been growing. This number still lags behind some other comparator countries (Brazil, Morocco, and Russia) but exceeds others (notably China).

Table 1: Global Branch Network -- A Broad View :Commercial Bank Branches (per 100,000 adults)

	2010	2015	2020
Ukraine	2.3	0.6	0.4
Ghana	5.3	7.0	8.3
Nigeria	6.6	5.0	4.8
China	7.3	8.5	8.8

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Philippines	7.6	8.8	9.2
Singapore	9.8	9.0	7.0
South Africa	9.8	10.4	9.2
India	10.0	13.5	14.7
Thailand	11.0	12.5	10.6
Norway	11.0	7.7	5.5
Turkey	17.9	19.1	15.4
Brazil	18.7	20.9	17.9
Morocco	20.8	24.6	24.2
Mauritius	21.3	21.7	16.4
Sweden	22.5	19.3	13.8
Russia	35.1	32.9	24.6

Source: World Development Indicators.
Note: Due to non-availability of data for 2020, data for 2019 have been taken for Ghana, Nigeria, and Mauritius and 2017 for Norway.

The number of ATMs has also been growing, although this number per 100,000 adults still lags far behind its analog in comparator countries. The government has also launched a mobile app *Jan Dhan Darshak* (JDD) to enable smart phone users to locate bank branches, ATM, post office banking facilities etc. Data from this app show that the number of villages not having such a banking touch point within five kilometres had declined to low levels by 2021.A CBDC, in contrast, would be stable in terms of central bank money (since it is central bank money); costs of transacting would be predictable; and it would be universally accessible. A CBDC- based smart-contract platform would be a hot house for financial innovation.

Conclusions:

1. Given differences in country circumstances, emphasis on motivations and perceived concerns, central banks are approaching their CBDC engagement differently. Indeed, the availability of digital infrastructure, mobile-phone and internet penetration, the level of competition in the payment system and data governance arrangements, are all factors that shape the objectives for CBDC issuance and determine the value added of CBDCs as well as their adoption.
2. Few central banks are still uncertain about the need for CBDC issuance in the near term, others are of the view that careful design can keep risks to a minimum (and ensure "no harm" to the financial system, as discussed in Group of Central Banks (2020)) while still yield net benefits. The preference among those in this second group is for a "payment-focused CBDC" – one that seeks to improve payment system efficiency and steers away from serving as a store of value to avoid the risk of disintermediation and major monetary policy implications. Accordingly, these central banks do not envision offering remuneration on their CBDCs and prefer some limits on balances and transaction values. Operational considerations underpin a preference for a two-tier system, where the private sector has a major role to play and which draws upon the strengths of both distributed and central ledger-based network structures. More generally, central banks envision a framework where public and private entities "partner" together as forming the basis for efficient and stable financial and payment systems.
3. Under, dynamic changing technical and banking services scenario, introduction of CBDC ensures that the benefits are widespread requires initiatives on multiple fronts: fostering wider smartphone penetration, specifying data privacy and know-your-customer rules, and verifying banks' technical preparation, as described in Soderberg et al. (2022).
4. With the introduction of CBDCs, it may act as a tool of discouragement for investing monies in crypto currencies and it will seek to create digital trails of such currencies when transacted. One of other objectives of introducing CBDCs is to control illegal, nefarious and money laundering activities

carried out by certain cross sections of people which tend to disrupt the effective and efficient functioning of the economy.

5. The central bank is advised to build durable, reliable relationships with software suppliers, on the plausible assumption that it does not possess all the relevant expertise in house. The experience of the East Caribbean Central Bank, which contracted with a Barbados-based fintech, Bitt, and whose CBDC, known as DCash, went offline for several months in early 2022 due to an expired system security certificate on the blockchain hosting the ledger, leaving users in the lurch, is a cautionary tale.

6. The ministry of finance, through RBI has launched Digital Currency in India on 1st Nov,2022. Further only 5 Banks (3 PSUs and 2 Pvt.) are authorised to deal with the issue and meet the Whole Sale transaction requirement. Eventually a decision is taken by the Finance Minister Mrs. Nirmala sitaraman to issue the Digital Currency to meet the Retail transaction requirements at the earliest. RBI needs to assess the readiness of the banks, other financial intermediaries, and the public to use that digital currency. Further, its impact on the conduct of monetary policy and its transmission; and its implications for capital flows, the exchange rate, and the composition and management of foreign reserves also assumes significance.

7. Rolling out a CBDC is not going to make stable coins and plain vanilla crypto currencies go away. Quite separate from discussions around possible issuance of a CBDC, the relevant governmental agencies can learn from their experience. They can learn faster if they first put the relevant regulatory systems in place.

8. Exchange over the network has expanded the utilization of new advances, along these lines expanding the interest for new electronic instalment strategies. Yet the ambiguities encompassing the utilization of the advanced cash leave area for investigation of its open acknowledgment, trust and expectation, which are the primary driver for the spread of the orderliness. The money related industry is seeing advances in budgetary innovation and expanding customer inclinations towards online monetary administrations. In this condition, national banks are thinking about their job as guarantors of money. The continuous computerized transformation and the ascent of enormous tech firms present the chance of an extreme lift from the traditionally model of money related trade. History and development analyzed in the sequential order in this study, obviously makes it visible that Bitcoin and different digital forms of money are improving with noticeable quality. Digital currency can't demonstrate its prosperity without anyone else except if the central banks approaches to dispatch the equivalent. Another point not to miss is that "cryptographic money" is as yet developing and there is no specific answer for the same.

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Fabrication of magnetic iron oxide-supported copper oxide nanoparticles (Fe_3O_4/CuO) for Anti-Microbial Studies

Naina Kale
Department Of Chemistry; Vmv Commerce, Jmt Arts & Jjp Science College, Nagpur
Email Address : nainakale1999@gmail.com

Abstract: The present investigation examines a sensitive electrochemical technique to detect desipramine through Fe_3O_4/CuO nanoparticles (NPs). Fe_3O_4/CuO NPs were synthesized *via* a coprecipitation procedure, and the products were characterized *via* energy disperse spectroscopy, X-ray diffraction, transmission electron microscopy, scanning electron microscopy, and vibrating sample magnetometer. The voltage–current curve and differential pulse voltammetry examinations of Fe_3O_4/CuO-modified screen-printed electrode (Fe_3O_4/CuO/SPE) were followed by the determination of electro-catalytic activities toward desipramine oxidation in a phosphate buffer solution (pH = 7.0). In addition, the value of diffusion coefficient ($D = 3.0 \times 10^{-6}$ cm^2 s^{-1}) for desipramine was calculated. Then, based on the optimum conditions, it was observed that the currents of the oxidation peak were linearly proportionate to the concentration of desipramine in the broad range between 0.08 and 400.0 µM and LOD of 0.03 µM (S/N = 3). Finally, our new sensor was successfully utilized to detect desipramine in the real samples, with reasonable recovery in the range of 97.2% to 102.7%.

Introduction

Currently, researchers have attempted to construct electrochemical sensors because they have properties such as selectivity, sensitivity, rapid responses, specificity, and simplified fabrication. In fact, electrochemical sensors contribute vitally to the medicine analyses.[1–7] In electrochemical analysis, the key component is electrode modification, which is one of the reasonable and robust strategies to resolve the limitations of the unmodified electrode, including lower selectivity, sensitivity, and stability as well as the blockade of electron transfer. Thus, experts in the field used diverse electroactive compositions to modify the surface.[8–15]

According to the studies, nano-technology is rapidly progressing towards the industrial applications in the areas of catalysts, isolation, synthesis, luminescence, and sensing.[16,17] Owing to their specific physicochemical features such as higher surface area and better sensitivity, nanomaterials have been considered for CL reactions as the catalyst, energy acceptor, enhancer, and platform of the CL resonance energy transfer.[18,19]

Current authors reported that nanoparticles (NPs) are largely involved in the quality of the sensing tools. According to the voltammetric examinations, they utilized such particles as the electrode modifiers to improve special surface areas, mass transport, and catalytic efficiency.[20–27]

Based on the investigations, the magnetic particles of the nano-metric size, particularly the iron oxide (Fe_3O_4) NPs, have been considered because of the respective super-paramagnetic characteristics; however, their utilization is restricted owing to the larger ratio of surface to volume and robust dipole–dipole attraction between the particles, as magnetic features of Fe_3O_4 are poor, and the functional groups are restricted for selective bindings. Of course, researchers applied substances such as metals and metal oxides to modify the Fe_3O_4 NP surface for avoiding the self-aggregation and improving chemical stability. However, for their specific and reasonable features, researchers considerably attended the metal oxides NPs. In fact, Fe_3O_4/CuO NPs have a widespread utilization to modify the electrodes since they augment the electrical conductivity and electrodes surface. Moreover, they enhance the electron transfer kinetics between the surface of the electrode and a wider range of the electro-active samples.[28–32]

Researchers believe that SPEs are a very beneficial means to design disposable sensors for applying in the electro-analysis. Actually, SPEs are very flexible, can be easily used, are affordable analytical instruments, and finally are appropriate for miniaturization.[33–37] Thus, Au, Hg, and Bi films are used to coat SPEs for improving the respective electrochemical functions.

Experimental

Chemicals and Apparatus

Ferric chloride ($FeCl_3.6H_2O$), Ferrous sulphate ($FeSO_4.7H_2O$), Copper nitrate trihydrate ($Cu(NO_3)_2.3H_2O$),Sodium hydroxide (NaOH) were purchased by Sigma-Aldrich, India. While Deionized double distilledwater, Ethanol, Acetone were available in laboratory of chemistry, S. K. porwal college, Kamptee. Thepathogens *viz. Staphylococcus aureus* and *Escherichia coli* were obtained from the Pathology and Diagnosislaboratory Department of Microbiology, Seth Kesarimal Porwal College Kamptee, India. The strains weremaintainedonnutrientagarslantsat4°C.As well,standardantibiotic*Amikacin*&*Ciprofloxacin*wasobtained fromHi-MediaPvt.Ltd. Bombay.

SynthesisofFe$_3$O$_4$MNPsbyCo-precipitationmethod

Fe_3O_4 nanoparticleswere synthesizedthrough aco-precipitationmethod.$FeCl_3.6H_2O$ (6 mmol, 1.62 g) and $FeSO_4.7H_2O$ (3 mmol, 0.59g) were dissolved in deionized double distillwater (100ml). stir the solution for 40 min at 55^0C temperature, make 100 ml solution ofNaOH (0.2 M)was added to the resulting stirring solution dropwise, the reaction mixture was heated at 60^0C undermechanicalstirring,producingblack suspension.Maintain basicpHat11. Fe_3O_4 NPs were magnetically collected. Washed the sample with ethanol and deionized water at the time ofcentrifugation. Dry the suspension in hot air oven for 4 hours at 100^0C. further calcinate the sample inmufflefurnacefor2 hoursat 500^0C. Collectthemagenticnanoparticlesof Fe_3O_4.[12]

Fig1:Synthesis ofFe$_3$O$_4$NPs

SynthesisofFe$_3$O$_4$-CuOnanoaparticles

Make the solution of copper nitrate trihydrate ($Cu(NO_3)_2H_2O$) in 0.1 M(2.1416g) in 100 ml of deionizedwater. Stir the solution for 30 min in mechanical stirring. Add Fe_3O_4 MNPs in 1:1 ratio i.e 2.416g in stirringsolution. Add precipitating agent NaOH (0.1M) dropwise, maintain basic pH. Stir the resulting mixture for7 hours.Bluish-black suspension is form, collect the sample by washing with ethanol and water. Centrifuge thesolutionfor5 timesat 2250 ppm for5 minin each round. Dry the sample in hot air oven for 6 hours. Calcinate further in muffle furnace at 500^0 C for 2 hours. CollectthesampleofFe3O4-CuONPs in sampletube. [13]

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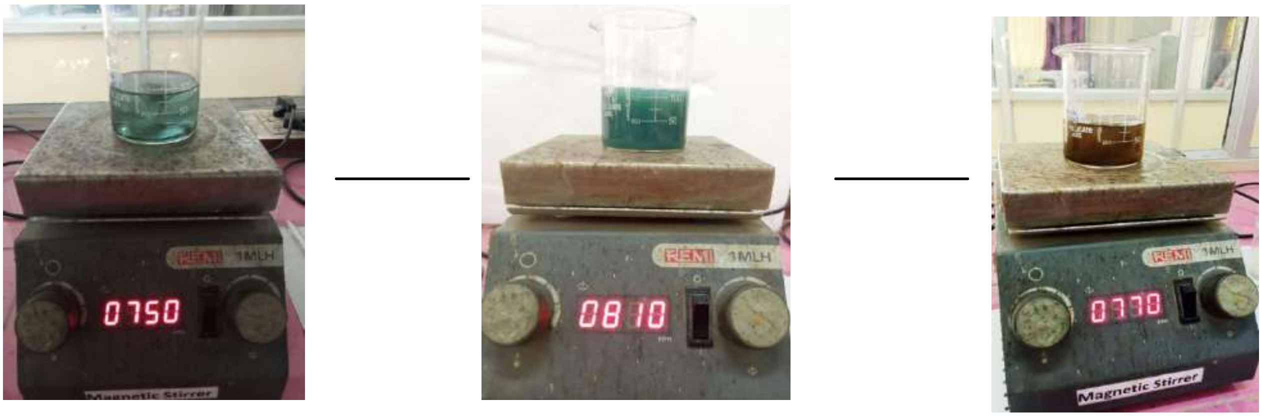


Fig2: Synthesis ofFe_3O_4-CuOnanoaparticles

Results and discussion

Morphology and structure of magnetic Fe_3O_4/CuO

Fig. 3 shows magnetic Fe_3O_4/CuO, which were characterized by TEM. Fig. 4 shows the spherical morphology for this compound obtained by SEM. Fig. 5. shows the magnetic measurements of magnetic Fe_3O_4/CuO at room temperature. Due to the hysteresis loops, the saturation magnetization (MS) was found to be 60 emu g^{-1} for the above compound. Fig.6. shows the EDX analyses of the as-synthesized NPs, which depicts the presence of the Fe, Cu, and O elements in this figure, clearly indicating the purity of the as-synthesized NPs.

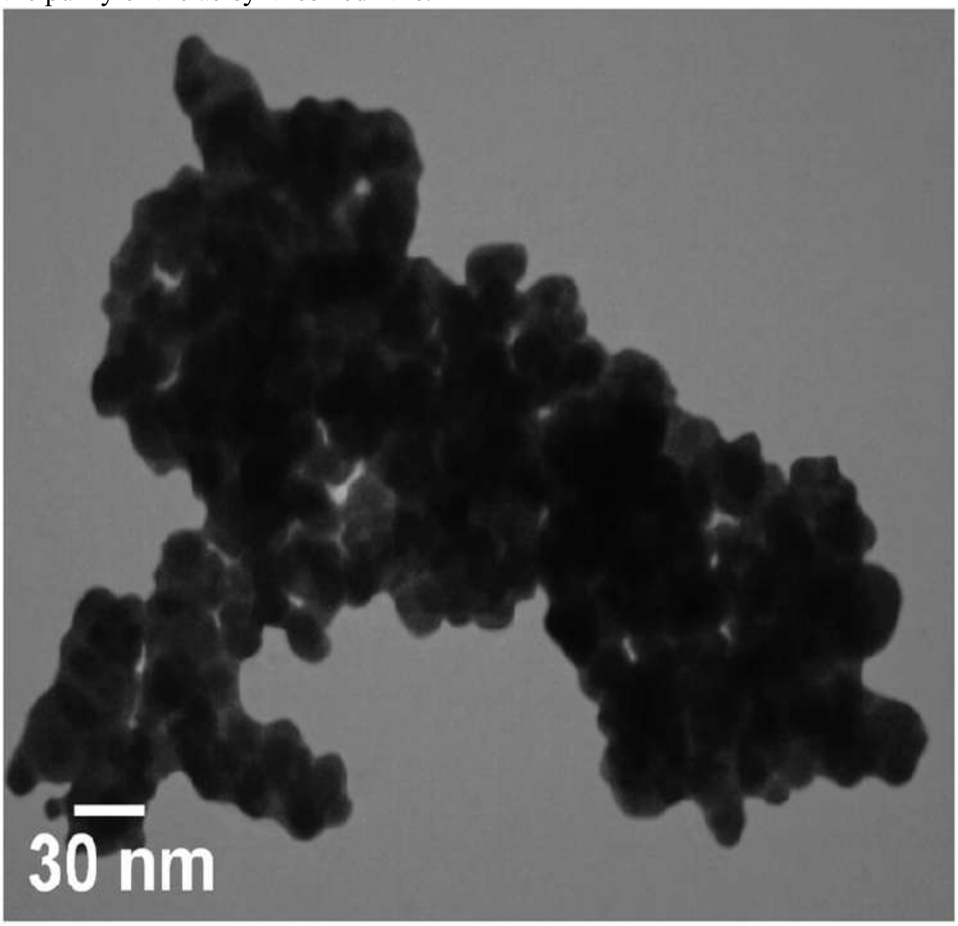


Fig. 3 The TEM image of magnetic Fe_3O_4/CuO.

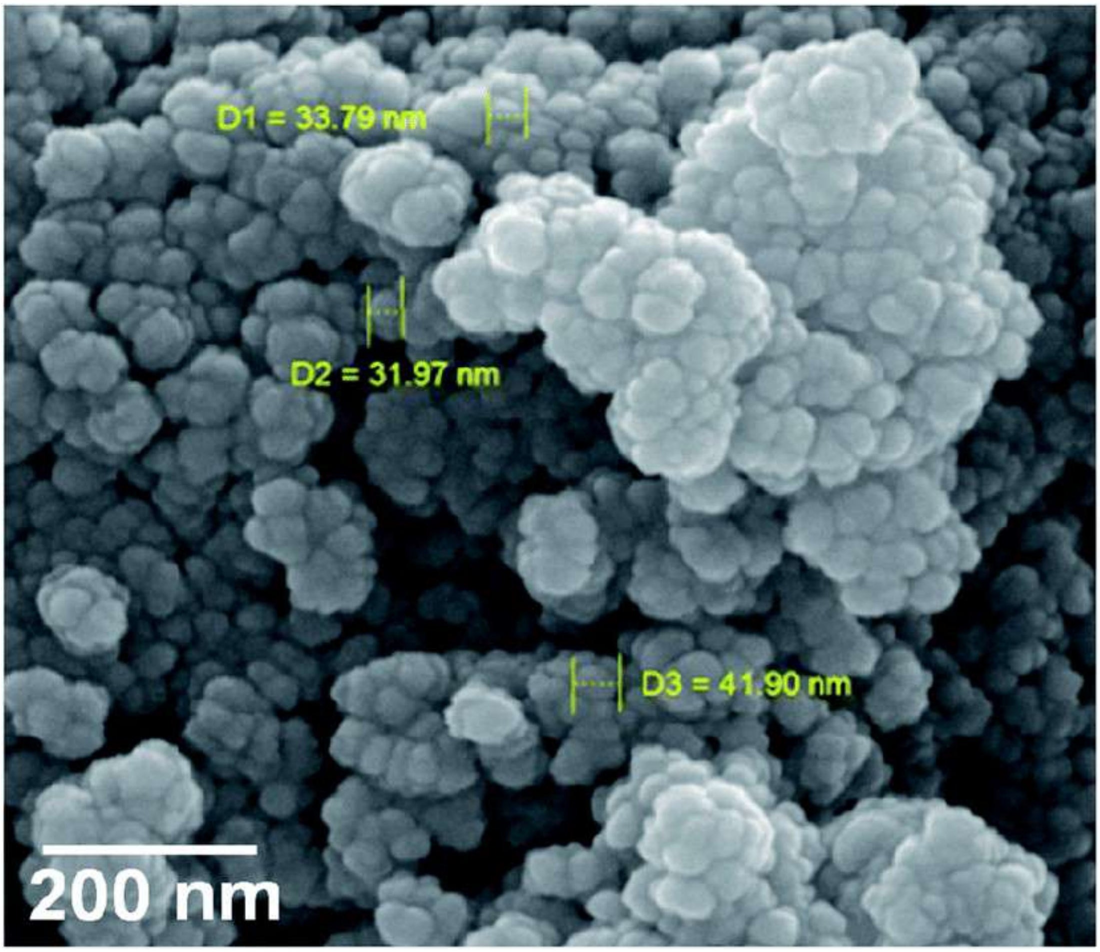
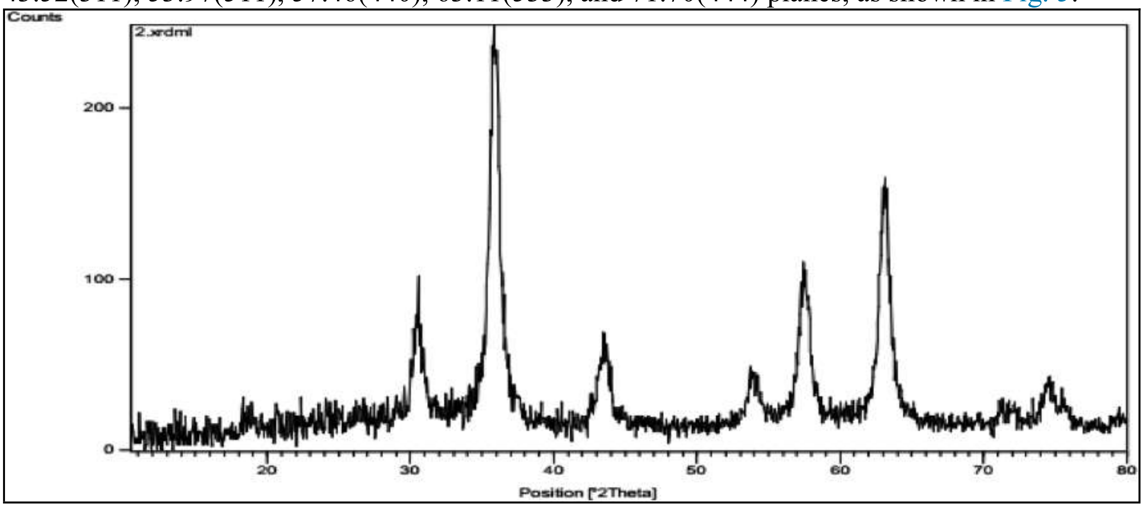


Fig. 4 The SEM image of magnetic Fe_3O_4/CuO.

Fig. 5 The EDS image of magnetic Fe_3O_4/CuO.

The XRD pattern in Fig. 5 confirmed the successful synthesis of the magnetic Fe_3O_4/CuO matched with the reference code: 00-025-0283 of the $CuFe_2O_4$ copper spinel form. By using the Scherer equation and 2θ, the mean size of the grain size for the magnetic Fe_3O_4/CuO (12 nm) can be obtained. Peaks for this compound were observed at 2θ = 18.64(111), 30.50(220), 35.89(400), 43.52(311), 53.97(511), 57.46(440), 63.11(533), and 71.70(444) planes, as shown in Fig. 5.[46,47]



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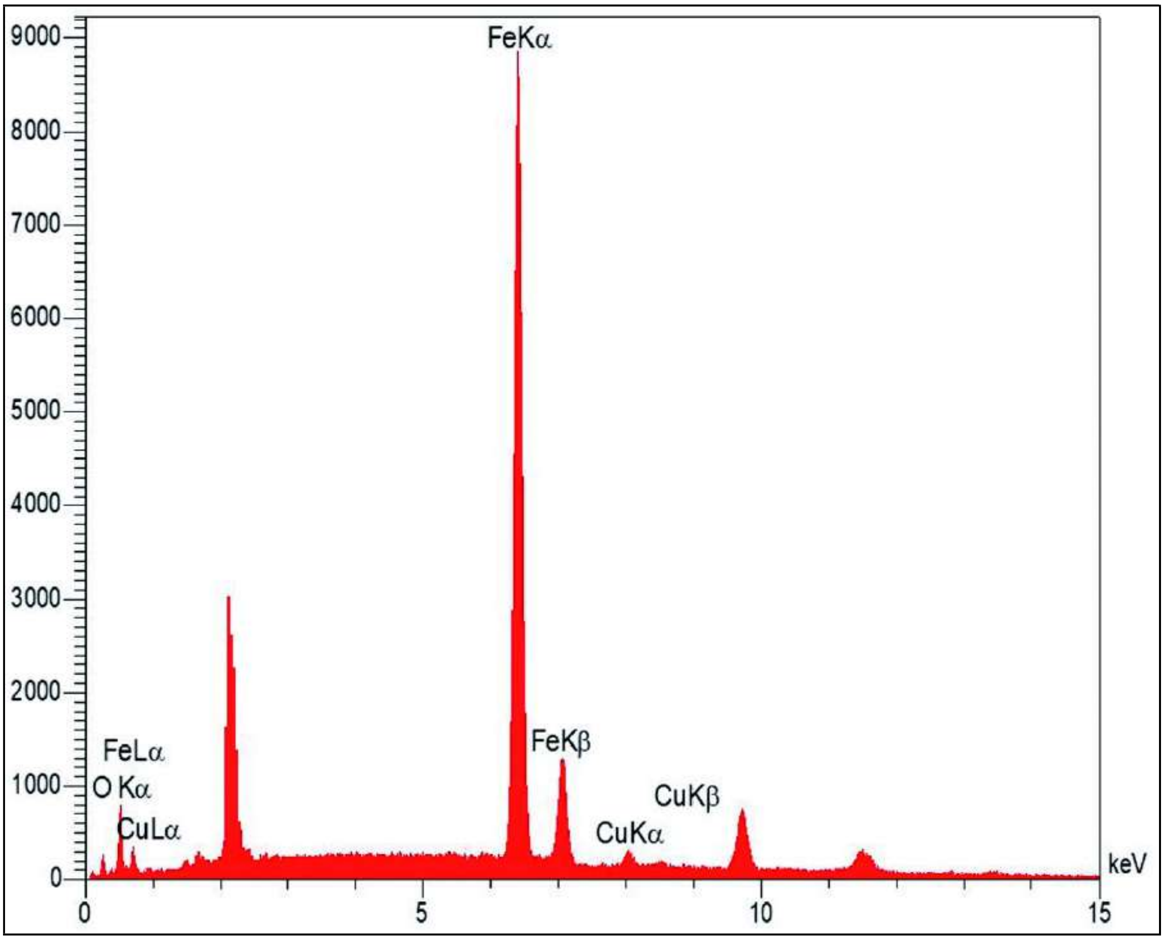

Fig. 6 The XRD pattern of magnetic Fe_3O_4/CuO.

Application

Inthepresentinvestigation,antibacterialactivityofFe3O4-CuONPs(Fig.(a–b)).Tothebestofourknowledge, this is the first laboratory study based Fe3O4-CuO NPs for effective antibactericidal activityagainst human pathogenic bacteria. The antibacterial activity of Fe3O4-CuO NPs. The antibacterial studies ofbothmaterialsweredoneattheconcentrationof0.001g/mL,0.005mg/mL,0.0075mg/mLagainst*Staphylococcus aureus* (S. aureus) and *Escherichia coli* (E. coli). Significantly, well zone of inhibition wasobserved in all the tested bacterial strains (Fig.(a–b)). But, out of tested pathogens, a strong inhibition zonewas observed for gram-negative *E. coli* (Fig. (a)) andgram-positive bacteria *(Staphylococcus aureus*).Mainly,bothFe3O4-CuONPsshowedsignificantinhibitionataconcentrationof0.001g/mL,0.005mg/mL,0.0075mg/mLin the gram-negativebacteria(*Escherichia coli*) andgram-positivebacteria(*Staphylococcusaureus*).

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Conclusions:

In this report, Fe_3O_4/CuO was procured by a coprecipitation procedure. Moreover, the Fe_3O_4/CuO generation was confirmed by the EDS analysis, XRD, SEM, TEM, and VSM. Further, the as-prepared Fe_3O_4/CuO/SPE were used for anti-bacterial activity against human pathogenic bacteria. Based on the results, our new Fe_3O_4/CuO possesses very good anti-bacterial acitivity and with multiple beneficial features, like a wider linear range (0.08–400.0 μM), low limit of detection (0.03 μM), better storage, and stability. Additionally, the urine specimen and desipramine tablet were used to assess the functional utility of the sensor, which shows very acceptable results and make Fe_3O_4/CuO one of the hopeful electrocatalysts to detect desipramine in the drug and biological specimens.

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Policies Impacting Mental Health In India-Issues And Challenges

Namrata Babhulkar
Research Scholar Singhania University, Jhunjhunu,Rajasthan
Contact Number: 9766917220,Email id: nbabhulkar21@gmail.com
Dr S. Mukundrajan
Professor, Singhania University, Rajasthan.Singhania University, Jhujhunu, Pacheri Bari, Rajasthan
Email id: rajansm18@gmail.com

Abstract- According to the definition given by world health organization health includes complete physical, mental and social wellbeing and not just absent of disease. The term mental illness include wide range of disorder which significantly affects personal, social and occupational life of an individual .If we look at the statistic approximately 150 million people in India are suffering from mental disability In order to promote mental health World Health Organization has drafted various policies from time to time. In addition to World Health Organization,United Nation has also declared mental health as one of the sustainable development goals in 2015 and defined mental health as priority for next 15 years. Since India is one of the signatory countries of UN so various policies related to mental health was adopted and implemented from time to time. Major among them was United Nation Convention on Rights of Person with Disability (UNCRPD) was held in (2007) with aimed to protect, promote freedom and dignity of person with mental disability and to give effect to UNCRPD and cases connected with it, government of India enacted Rights of Person with Disabilities Act 2016.

In 2007, National Health Policy was implemented. In May 2013, WHO's Comprehensive Mental Health Action Plan 2013-2020 was adopted by Indian Government which aimed to promote mental wellbeing, prevent mental illness, reduce mortality, morbidity and disability for person with mental illness, and promote human rights for person with mental disability. In spite of having well drafted and prompt implementation of the above said policies there are challenges such it has been observed that people escape from responsibility when it comes to provide service to person with mental disability, challenges related to establishment of institutions, financial issues , issues related to admission of patients in hospital, lack of mental health review board, insensitivity towards mentally ill, lack of awareness regarding legal frame work and policies connected with person with mental illness among people in general ,shortage of human resources.

Keywords: Policies, Mental Health, Mental illness

Introduction

A policy is plan of action or a strategy which a government intends to do. Policies are just an informal document and not a formal law but many times policies may lead to enactment of new law. Policies are guidelines which help institution or organization to do certain task. Policies are equally important as law. These policies help to shape the society. There manypolices framed in connected to various issues in society by the government. In this research paper we are going to discuss policies related to mental health in India.[1]

As per World health Organization Health is not merely absence of disease but it comprises of physical, mental and social wellbeing of an individual. If we look at physical wellbeing there are already laws related to medical filed which take care of medical negligence issues. Criminal and Civil laws which currently exist are taking career of social wellbeing of an individual. Now when it comes to mentalhealth, In India talking about mental health and taking help of psychiatrist is still consider as a taboo so unless and until there are policies and laws framed to protect mental health of individual the situation will not improve[2].

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[1]http://www.differencebetween.net/miscellaneous/politics/difference-between-law-and-policy/ retrieved at 28/1/2023 at 4.00 pm
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If we talk about India according to WHO's 2011(2016) UpdatedsensesIndia spends less than 1 % of its total budget on mental health and there is a scarcity of mental health professionals.[3]There is one psychiatrist behind 3.4 Lakh people.[4]So in order to promote mental health ,to provide universal access to treatment, to reduce stigma of mental illness and to provide universal psychiatric care to entire population ,mental health policy was launched in India for the first time in 2014 on the occasion of world mental health day[5]

In India Minister of Health and Familywelfare, ministry under government of India Looks after the planning and implementation of the policy at the national level,Director general of health services Joint Director –Mental health is the central monitory agency for DMHP, Secretary state mental health authority is state monitoring agency and project coordinator for state and District project officer looks after implementation of national mental health policy at district level.

Policies related to Mental Health in India

In 1978 WHO declared Alma Ata Declaration (ADD), who's major aim was to "Health for all" at global level.This declaration made a major shift from institutional oriented health care to community-based health care.[6]In this context India launched several policies,some notable among them are National Health Policy (1983), The National Policy for Mental Handicap (1988). District Rehabilitation Centre Scheme (1985)

National Mental Health Program (NMHP) in 1982-The Government of India has launched the National Mental Health Program (NMHP) in 1982 whose objective was to ensure availability of mental healthcare for all, to encourage application of mental knowledge in general healthcare and in social development and to promote community participation in mental health service development.[7]

District Mental Health Program 1996 -The District Mental Health Program (DMHP) was launched in 1996 (in IX Five Year Plan) based on "Bellary Model" who's aim was early detection,monitoring, treatment of people with mental illness, creating public awareness and imparting training to general physicians for common mental illness with limited number of drugs under guidance of specialist. Starting with 4 districts in 1996, the program was expanded to 27 districts by the end of the IX plan.

National Mental Health Policy 2003-The NMHP was re-strategized in the year 2003 (in X Five Year Plan) with the following components:

1. Extension of DMHP to 100 districts
2. Up gradation of Psychiatry wings of Government Medical Colleges/ General Hospitals
3. Modernization of State Mental hospitals
4. Information, Education & Communication (IEC) Activities
5. Monitoring & Evaluation

12th Five-year Plan (2012-2019) -The district mental health programmed will be extended to the remaining 161-districts and the gains made in the previous plans will be consolidated, up gradation of the remaining 39-Medical College Psychiatry Departments will be undertaken and 20-Mental Hospitals will be taken up for disinvestments/reconstruction. Non-viable mental hospitals will be closed down or merged with general hospitals to create general hospital psychiatry units (GHPUs). Central and State Mental Health Authorities will be further reinforced and technologically more sophisticated long-term research projects will be initiated in selected institutions while continuing support to community-based research. IEC activities will be augmented to cover all sections of the

[3]https://scroll.in/article/684038/five-reasons-why-indias-first-mental-health-policy-is-an-impressive-document retrived on 1/2/2023 at 7.10 pm

[4]https://www.slideshare.net/RuppaMercy/national-mental-health-policy-248195701 retrived on 9/2/2023 at 8.09 pm

[5]https://nhm.gov.in/images/pdf/National_Health_Mental_Policy.pdf retrieved on 1/2/2023 at 7.45 pm

[6]https://www.researchgate.net/publication/51651631_National_Mental_Health_Programme_In_India_1982-1989_Mid-Point_Appraisal retrieved on 9/2/2023 at 10.28 pm.

[7]https://main.mohfw.gov.in/sites/default/files/9903463892NMHP%20detail_0_2.pdfretrieved on 9/2/2023 at 10.41 pm

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population across the whole country. A comprehensive, holistic assessmentand review of programmed performance in the preceding two decades will be undertaken at the national and state levels by an independent agency to identify achievements, areas of non or poor performance, remedial measures, current needs and future requirements.

Mental health policy in 2014, this policy was launched in harmony with the WHO mental health policy as India was signatory to it. Vision of the policy was to promote, prevent mental illness, to provide affordable and quality service to all individuals in the society. The Major highlights of the policy was to provide community-based rehabilitation services, assisted living services availability of trained mental health professionals and to reduce suicide and suicideattempts.

Issueswith Mental health policy 2014 were Training of general practitioner at the community level was inadequate. Mental health need of the children in conflict with law was not achieved as there was lack of collaboration of legal system and social welfare agencies in this regard. Community rehabilitation and social incorporation of the person with mental illness could not be achieved as there was lack of implementation of policy by executory bodies such as educational institution etc.Ground level implementation of policy was extremely low.There was need to financial and human resources for effectiveimplementation of policy.

National Health Policy of India (NHP, 2017) –this policy was launched in 2017which has certain provisions which supported national mental health policy. The aim of policy was to inform, clarify, strengthen and prioritize the role of the government in shaping health system in all dimensions. some notable provisions of this policy are to increase specialist through public financing, to create network of community members to provide psychosocial support to strengthen mental health services, to provide access of digital technology to people in a context where qualified psychiatrist is not available.

These were the policies related to mental health which were implemented, beside these policies various plans and survey were also done by government before implementation of policies. The draft of National policy for Person with disabilities (Divyangjan)2021 is yet to be implemented.

Issues related to Policies

Mental health policies are well drafted but still there are some lacunas while implementation of these policies. following are the special issues in context with the above policies

- Attentionis not paid on psychiatric problems of certain vulnerable population which includes the following category
- Senior citizens suffering from severely disabling diseases such asAlzheimer's and other types of dementias, Parkinson's disease, depressions oflate onset and other psycho geriatric disorders.
- Victims of child sexual abuse, marital / domestic violence, dowry related ill treatment, rape and incest.
- Children and adolescents affected by problems of maladjustment or otherscholastic problems, depressions/psychosis of early onset, attention deficithyperactivity disorders and suicidal behavior resulting from failure inexamination or other environmental stressors.
- Victims of poverty, destitution and abandonment such women thrown out ofthe marital home or old and infirm parents left to fend for themselves.
- Victims of natural or man-made disasters such as cyclones, earthquakes,famines, war, terrorism and communal/ethnic strife, with special attention tothe specific needs of children orphaned by such disasters.
- No guidelines are mentioned in relation to establishment of rehabilitation centre including day care centre specifically for person with mental illness.
- At village level most of the villages do not have primary health care centre with regular visit of psychiatrist / psychologist or mental health care experts.
- Occupational therapy facility is still not available in rural area, besides this the cost of such therapy is too high for a common man.

Challenges related to Policies

There are certain challenges which effect the implementation of policies. These are as follows.

a. No policy can be effectively implemented without an adequateallocation of budget and a timely financial flow.
b. Collaboration and rehabilitation are minimal.
c. Monitoring and evaluation of policies needs done on a regular basis.
d. There is a significant gap between the identification of mental disorder and awareness and accessibility to treatment.
e. Inspire of the efforts taken by the government still mental illness is considered as ataboo and is stigmatize in our society which in turn increases the difficulty level of person affected with mental illness.
f. In the context of doctor patient ratio Indian is still facing challenge of Lack of well-trained experts.
g. State has not mentioned abouthow the burden of cost of treatment and aftercare will be addressed.
h. Person with mental illness can appoint their nominated representative who will address the issues and decision to be taken on behalf person with mental illness but here state has notmentionedwho will be appointed as nominee in case of absence of any caregiver, or if any family member is not ready to take responsibility of person with mental illness.
i. There is lack of half way home especially for person with mental illness in Maharashtra state.
j. Cost of treatment is usually high as a result people could not afford the treatment.
k. As per the mental health act 2017, it is mandatory to established mental health review board but till date only Karnataka and Tamil Nadu had established the Mental Health Review Boards in India.

Conclusion

Mental health is fundamental to our collective and individual ability as humans to think, emote, interact with each other, earn a living and enjoy life. On this basis, the promotion, protection and restoration of mental health can be regarded as a vital concern of individuals, communities and societies throughout the world. Therefore, it can be concluded that any policy can only be implemented when it fulfils certain criteria, which are as follows: Politically acceptable, financially viable, socially desirable, technologically feasible, emotionally relatable, judicially enable, administratively durable

There are number of policies implemented at national and international level for mental healthcare workforce to provide adequate mental health services in India. But there is a gap between these legislations and their effective implementation due to certain factors such as budget insufficiency, lack of manpower, lack of primary research and many more which have been discussed in this research paper.

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India's position on Sustainable Rural Development

Navrang Damodar
Assistant Professor of Sociology (CHB)S. B. City College,navrangdamodar782@gmail.com,7448227810

The world has enough for everyone's needs, but not everyone's greed.- Mahatma Gandhi

The word sustainable development was mentioned for the first time in the Brundtland report in 1987 as "a Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs." The concept of Sustainable Development now focuses on three parameters: economic development, social development and environmental protection for the future. In 1992 Earth Summit was held in Rio de Janeiro where for the first time an effort was made to institutionalize the goal of Sustainable Development. In 2015, United Nations General Assembly adopted the sustainable development goals which are important in order to achieve sustainable development. The United Nation General Assembly has tried to address the Global issues including poverty, inequality, climate change, environmental degradation and injustice through these 17 goals.

According to the Multi-dimensional Power Index released by Oxford Poverty and Human Development Initiative and United Nations development program. India ranks 66 out of 109 countries that were surveyed for multinational poverty. A Large number of people in India are living in abject poverty due to the reason that India even after 75 years of Independence has been a country of villages where a lot of people are dependent on agriculture for their livelihood but Agriculture makes a very less contribution to the GDP of the country. They are vulnerable to the climate change issues which are faced by the whole world. In India, Socio-Economic inequality between the Urban and Rural people even after Urbanisation a lot of people who are migrating from rural villages to urban areas are living in slums which are unhygienic and do not have the basic urban amenities required for living a healthy life. As per the World Bank report, India's per capita income is 1900$ which is lower than the Global average of 10909.3$, America's 63543.6$, and China's 10500.4$. India is ranked 134 out of 189 countries on the Human Development Index. India is ranked 168 out of 180 countries on the Environmental Performance Index. The new liberal economic policy of capitalism which includes Mass Production and Mass Consumption that lead to Economic Inequality in India and turned the Traditional Economy of India into a High Carbon Economy. According to IPCC 6 report, If the present rate of increase in greenhouse gases continues, the world will fail to limit the average temperature rise to less than 2□ and the same will have a spellbound effect on the Economic Development and well-being of people in India. Climate Change will ultimately lead to Economic Disasters due to the growth of the High Carbon Economy. Carbon footprint varies with the individual as per their income. The rich produce more carbon footprint than the poor but unlike this, the poor people are at the receiving end of the disastrous effects of climate change. Millions of poor people are affected by the increasing number of cyclones, precipitation, floods, severe droughts, forest fires, acute shortage of drinking water and destruction of Socioeconomic infrastructure. Climate change is costing India around 5 to 10% of its GDP. Climate change affects Agriculture, natural resources and ecosystem services. The New Economic Policy introduced by India after 1991 has created greater Economic Inequality whereas the Environmental Policies for several decades have failed to conserve and enhance the natural resources of the country. Hence while pursuing the goal of becoming the Fastest Growing Economy, we also need to take into account Environmental Conservation which is succinctly called Sustainable Development. In pursuit of Sustainable Development, the country is facing the challenge of mobilizing financial resources for the mitigation of greenhouse gases and financing adaptation activities.

The rural society is ploughed by a number of challenges like economic issues, not enough civil amenities, lack of educational facilities, social issues, faulty administration, lack of employment opportunities, discrimination in policies migration, and rural health care. Traditionally Rural Society in India was a lover of nature. Rural people used to worship nature. Naturalism was the religion of

Traditional Indian Society. According toMax Muller, they used to worship nature out of fear that nature will bring disasters and cyclones flood but their thinking about nature led to natural conservation. Rural society is also facing environmental issues like land degradation, environmental degradation, methane emissions and water pollution due to subsidized fertilizers.

While thinking about Development it is equally important to take into consideration the Social Dimensions of development. While implementing the government schemes, it is important for the government to take into account the various stakeholders of Rural Development. There has to beproper consultation with the local people of the rural area before formulating any policies or schemes. For several decades in the past, Rural Development Schemes were Hijacked by the Rural Elite in addition to it government officials did not realize the difference in the interest of Rural Elite and the local people. Government officials also had a fatalistic attitude toward government objectives. Moreover, Rural Society in India has always been retrograded and conservative in nature which hinders the goal of economic development. It is important for the rural economy to be transferred into a mobile, receptive, outward-looking system which is conduciveto economic development. Government relationship with the masses assumes greater importance in the domain of policymaking for the all-round development of the particular area.

Recently, the annual Conference of Parties of UNFCCC concluded its 27th edition at Sharm El-Sheikh, Egypt. COP is the decision-making body of the United Nations Climate Change Framework Convention; it was founded in 1994 to stabilize Greenhouse Gas Emissions in order to protect the earth from increasing rate of climate change. At COP 27, it was decided to take action towards achieving the world's collective climate change goal as agreed under the agreement. There are several major takeaways from cop27 for example, the Loss and Damage Fund which is the Financing Mechanism to compensate the most vulnerable countries for climate-linked disasters. AWaRe initiative has also been launched in partnership with the World Metrological Organisation, which will address water-related challenges and solutions. Global Shield Plan is also launched which is a Funding Mechanism that provides funding to countries suffering climate disasters. UNFCCC launched the first joint work program of the Technology Mechanism for 2023-27 mutual focus on high-potential sectors and high-potential action across the water, energy, food industry, and other sectors. India came out with the target to achieve net zero by 2070. India also promises to meet its 50% energy demand from renewable energy sources. The pursuit of adaptation to climate change could cost India more than 85 trillion dollars by 2030.

Initiatives taken by the Govt. of India towards Sustainable Development

Various steps are taken by India for meeting its commitments under the climate change agreement, the government launched National Hydrogen Mission in 2021 which is expected to spearhead India toward the status of becoming a hydrogen exporter in the world. Green Hydrogen will help in the reduction of the emission of carbon dioxide into the atmosphere, thus contributing to reducing the greenhouse effect. India has also set its ethanol blending target of 20% ethanol blending with petroleum by 2025 and the promotion of electric vehicles through the FAME India scheme. Niti Aayog's vision document has set the target of 30% of the total electric vehicles on Indian roads by 2030. In order to deal with the old vehicles, Vehicle Scrappage Policy incentivizesthe customer to sell their old vehicle which is replaced with an electric or hybrid vehicle. India is planning large-scale intervention in the following 5 sectors energy, electricity, transport, urban design, industries and forest. Emissions from vehicles are one of the top contributors to air pollution, which led the government at the time to introduce the BS 2000 (Bharat Stage 1) vehicle emission norms from April 2000. However, in 2016, the government decided to meet the global best practices and leapfrog to BS-VI norms by skipping BS V altogether.

National Action Plan on Climate Change (NAPCC) which outlines existing and future policies and programs addressing climate mitigation and adaptation. The Government of India created the National Clean Energy Fund (NCEF) in 2010 for financing and promoting clean energy initiatives and funding research in the area of clean energy in the country. India and France launched International Solar Alliance(ISA) at the United Nations Climate Change Conference in Paris on 30 November 2015. National Water Mission (MoWR) to improve water use efficiency with the use of

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pricing and other measures. National Mission for Sustaining the Himalayan Ecosystem (MoS&T) to conserve biodiversity, forest cover, and glaciers of the Himalayan region. National Mission for "Green India" (MoEFCC) to expand forest cover from 23% to 33% of India's territory. National Mission for Sustainable Agriculture (MoA) – climate-resilient crops, crop insurance, sustainable agricultural practices.National Solar Mission (MNRE) – Goal for increasing the development of solar technologies such as increasing production of photo-voltaic to 1000 MW/year, Establishing the solar research centre and promoting international collaboration. At the COP-26 climate summit in Glasgow, India launched the 'One Sun One World One Grid' (OSOWOG).

The fundamental concept behind OSOWOS is to develop a transnational grid that will be laid all over the globe to transport the solar power generated across the globe to different load centres. The Coalition for Disaster Resilient Infrastructure (CDRI) was launched by the Hon'ble Prime Minister in September 2019 at New York. It aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development. The National Rurban Mission (NRuM) follows the vision of "Development of a cluster of villages that preserve and nurture the essence of rural community life with a focus on equity and inclusiveness without compromising with the facilities considered to be essentially urban in nature, thus creating a cluster of "Rurban Villages". National Special Assistance Programme represents a significant step towards the fulfilment of the Directive Principles of State Policy envisaged in the Constitution of India which enjoin upon the State to undertake within its means a number of welfare measures.These will help in securing the citizen's adequate means of livelihood, raise the standard of living, improve public health, provide free and compulsory education for children etc. Unnat Jyoti by Affordable LEDs for All (UJALA), launched by Hon'ble Prime Minister, on 5th January;2015 to provide LED bulbs to domestic consumers for replacement of incandescent bulbs with LED bulbs at an affordable price. Street Lighting National Programme (SLNP) was launched by Hon'ble Prime Minister on 5th January: 2015 to replace conventional street lights with smart and energy-efficient LED street lights. Gram Ujala program launched on 19th March; 2021 wherein old types of bulbs are replaced by efficient LED bulbs that consume 88% less electricity. MNREGA was implemented by the government in 2006, it was intended to create durable assets geared towards water conservation, drought proofing, irrigation, land development, water harvesting, flood control and rural connectivity.

The Pradhan Mantri Ujjwala Yojana (PMUY) is a government scheme launched in 2016 by Prime Minister Narendra Modi. The scheme originally envisaged the distribution of 50 million LPG connections to women below the poverty line. Later, it aimed to provide LPG connections to eight crore women by March 2020. Gramothathan campaign has been started by Maharashtra Government to bring sustainable village development in the state on the occasion of the Golden Jubilee Year of the establishment of Maharashtra State.

This scheme received from the government grants for nursery and tree conservation, management of solid waste in the village, village waste management, drainage, street lighting, solar street lights, non-renewable energy development and use, providing basic amenities to the construction of cremation ground and other necessary facilities for it, building the memory gardens, village boundaries under village council, and construction of gutters, parks and buses, Rajiv Gandhi Bharat Nirman Village Facilitation Centre, other innovative projects for environmental-sustainable development etc.To sum it up, it is of utmost importance while walking on this path of Development that our country needs to bring synergy between the economic policies and environmental policies so that we do not exhaust Earth's exchequer of natural resources. If India continues to keep walking on this path of Sustainable development, then noone can stop India from becoming a Vishwa guru in guiding the world in a similar direction.

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Entrepreneurship and Rural Development in Self Reliant Bharat

Ms.Neelam D Gotmare
Research Scholar, Department of Commerce and Management,RTM Nagpur University Nagpur
Dr Preeti R Gotmare*
Assistant Professor, Department of Management, Central University of Tamil Nadu, Thiruvarur

Abstract: Atmanirbhar Bharat, in the PM's vision, will be built on five pillars: economy, infrastructure, technology, demography, and demand. India is most populous country most of population residing in rural area. Rural development is must for whole country development. Government takes various initiatives for development of rural areas. Sustainable development is possible when both urban and rural areas are developed. Due to entrepreneurship in rural area infrastructural development is possible; generate employment opportunity, living standard of people increases, Per capita income increases, land less farmers and their family earn livelihood from different type Entrepreneurship etc. NABARD also plays vital role and promote Entrepreneurship in rural areas. Micro, Small and Medium scale enterprises(MSME) generate huge employment for rural people.

Keyword: Entrepreneurship, Rural Development, Sustainable Development, NABARD, MSME, Employment opportunity, Infrastructural development, Per capita income.

Objectives:

1. To study the link between entrepreneurship and rural development.
2. To understand Role of NABARD in promotion of entrepreneurship in rural development
3. To understand MSME role in rural development
4. To study various schemes of Government and different banks for rural development
5. To study impact of Entrepreneurship on rural development as well as country development
6. To understand different types of Entrepreneurship in rural area.

Introduction

In India 60% of total population residing in rural area. India's development mostly depends on these 60 % population. Their income is depending on agriculture and allied business Government takes various initiatives for providing employment to the rural populations. Country balance development depends on both urban and rural development.Infrastructure development, Agriculture development, per capita income of rural population, increases etc. The rural people are based on agriculture and allied business like Fisheries, Poultry farm, Goat Farm, Dairy Farm etc. Rural people contributed 25-30 %in India's GDP.

Role of Entrepreneurship in rural India

1. Poverty Reduction and Growth of slums Areas.

By Promoting Rural Entrepreneurship in India, Upliftment the economic conditions of people living in rural areas and ensure establishment of enterprises, there will be creation of numerous job for those people.

2. To fill the income gap between Rural and urban Natives.

Due to Entrepreneurship, employment opportunities created in rural areas this leads to fill the income gap between rural and urban natives.There is strengthening of Microinsurance products so as to protect the farmers from unseasonal rains, loss of crop due to wild life, crop loss due to diseases etc. this leads to sustainable development is possible in India

3. Improves the literacy rate of rural population

The Development of rural Entrepreneurship in India deserves attention due to the increasing literacy rate in India.

4. Skill development and best utilization of it rural India having tremendous potential of different skills due to small scale industry it is possible to come forward.

5. Growth of infrastructure in rural area.Due to Cottage industry,KutirUdyog, Handicraft Etc.there are supply of water, electricity, Road Facilities are developed also generate employment.

6. It can help to reduce the migration of people from rural to urban area in search of jobs.s

7. Entrepreneurship promotes has the potential to promote rural artistic activities. Handicraft activities also get promoted.

Public participation in the rural economy is a need of the days, as the farmers do not have proper infrastructure facilities due poverty. Therefore, at Gram Panchayat level certain machineries like tractors, cultivators and other farm equipment's must be provided. Moreover taking farmers good produce land to market facilities should be provided to help the farmers to generate more income.

Atmanirbharat

India's new economic policy is known as Atmanirbharat. Atma denotes self, while Nirbharata means reliance. Following the March 24, 2020 lockdown, Prime Minister declared the Atmanirbhar Bharat Abhiyan, which asks for India's economic mission to be centered on self-reliance. Recently, the Prime Minister lauded the private sector's merits above the governmental sector, emphasizing the services it delivers, the jobs it creates, and its contribution to poverty reduction.

Atmanirbharta is based on a certain concept of entrepreneurship. Entrepreneurship has its roots in classical political economy, with economists like Richard Cantillon and Jean-Baptiste Say emphasizing risk-taking and initiative in order to capitalize on possibilities. The word "entrepreneur" combines parts of "adventurer" in English and "self-motivated" from the Sanskrit atmaprerna. It means "to grab" or "take control" in French.

As a result, the traditional image of an entrepreneur is of an individual actor capable of taking risks, weighing pros and cons, making quick decisions, and remaining afloat while riding out market forces' highs and lows. They should be tenacious and long-term thinkers who establish enterprises that benefit not only themselves but also their staff and others. In recent years, the economist Joseph Schumpeter has emphasized the importance of the entrepreneur's ability to think of new ways of doing things. Many economists now believe that for such innovation to survive, it requires a full ecosystem of angel investments, bank loans, regulatory processes, bankruptcy laws, and fundamental infrastructure.

Atmanirbhar Bharat, in the PM's vision, will be built on five pillars: economy, infrastructure, technology, demography, and demand. This appeared to be an acknowledgment that the self in self-reliance was not an atomized self-maximizing individual, but rather one involved in complex relationships, aiming to grow and fly high among the dense network of community, market, and State, with a safety net in place if the risk-taking failed.

- **To understand GDP contribution to Indian Economy.**

Rural Economy contributed 25 - 30 % to GDP. Traditionally , agriculture is main source of income and employment opportunities,But non- Farm activities like cottage industry ,Handicraft, Poultry farm, Milk Production i.e. Dairy Business , Food grain, Fruits, Flowers export also possible in many states of India. Therefore, rural economy is the back bone of Indian economy ultimately for raw material, for food all industries depends on Rural India.

- **To understand employment opportunity in Rural India.**

In every type of small, medium scale business there are creations of employment opportunities for rural people, Specially House wife women, Men also get opportunity of employment and increase their income. Example in Gujarat there was establishment of AMUL industries large number of people is employed in those industries.

NABARD- National Bank for Agriculture and Rural development

National Bank for Agriculture and Rural development is apex bodyestablish for agriculture and rural development. It was created by government in the act 61 of 1981 actual existence of NABARD commence from 12th July 1982

Mission: Promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity.

Redefining Micro, Small, and Medium-sized enterprises (MSMEs): Removal of distinction between manufacturing and service MSMEs; upward revised definition of MSMEs in industry and service sector.

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Accommodative Monetary Policy: The repo rate was maintained at 4% in FY2022 by the Monetary Policy Committee of the Reserve Bank of India (RBI), while continuing with an accommodative stance to revive and sustain growth on adorable basis and to mitigate the impact of the pandemic on the economy, and also ensuring that inflation remained within the target going forward.

Microfinance policy: The RBI has reviewed the microfinance policy to harmonies the regulation of microfinance loans provided by entities such as commercial banks, NBFCs and NBFC-MFIs. The RBI has directed the financing entities to put in place policies for assessment of household income, limits on loan repayment obligations of a household as a percentage of household income, and pricing of microfinance loans.

Note: MFI = Microfinance Institution; NBFC = Non-Banking Financial Company.

The agriculture and allied sector needs comprehensive reform and technology-driven transformation to support the aspirations of a$5-trillion economy

Role of NABARD in Entrepreneurship and Rural Development

1 Providing finance for Entrepreneurship through RRB –Regional Rural Bank

2 Providing finance to Self-help group for developing Women's Entrepreneurs

3 Conduct different workshops and seminar in every states of country in order to motivate rural people to take initiatives for entrepreneurship

4 Providing Latest and innovative knowledge to Farmers for farming and allied businessand other rural populations for other type of business i.e. Dairy Products, Fisheries, Poultry farm, Cottage industries etc.

Role of MSME – Micro, Small and Medium Enterprises

1 MSME provides many employment opportunities to rural people

2 KahadiUdyog, Cottage industries, Handcraft business also comes under MSME many rural population generate income from it

3 Papad making business, Achar making business also comes under Small scale industry lager no of women's in rural sides employed in it

❖ **Problem faced by Rural Entrepreneurship in making rural India sustainable developed**

Financial Problem	**Marketing Problem**	**Management Problem**	**Human resource Problem**	**Others Problem**
1. Lack of funds	1. Lack of Market information	1.Lack of IT knowledge & Technical Skill	1.Low skill level of worker	1.Political &Structural Problem
2.Poor infrastructures	2. Competition	2. Non availabilityof skilled labor	2.Negative Attitude	2. Poor knowledgein the maintenanceof Account.
	3. Middle man	3. Procurement ofRaw material		
	4.Low quality products	4. Poor quality of Products		

❖ **Financial Problems:-**

1. Lack of Funds: Finance is the backbone for any business rural Entrepreneur fails to get fund from external sources due to the absence of collateral security.

2. Poor infrastructure Facility: Rural Entrepreneur faces poor infrastructure facility, poor road, electricity supply, water supply, storage facilities in rural India for own development of this facility there is a finance problem.

❖ **Marketing Problem:-**

1. Lack of Market Information:- Rural entrepreneur having lack of market information. Market Trend prices demand of product in Market.

2. Competition: - Entrepreneur faces competition in deferent market segment technology etc. This leads to problem facing by him or her.
3. Middle Man: - Mostly in rural area agricultural produce handicraft, dairy products are sale to middle man in villages or nearby Mandi in lower prices.
4. Low Quality Products: - Product manufacturing by rural entrepreneur is having low quality product due to the lack of proper infrastructure.

❖ **Management Problem:-**

1. Lack of IT knowledge and technical skill: - Lack of IT knowledge and technical skill faced by entrepreneur in rural area very few people in rural area having IT knowledge and required technical skill.
2. Non availability of Skilled Labor:- There is a absence of skilled labor in rural area.
3. Procurement: - Procurement of a raw material for product manufacturing.
4. Poor quality of product: - due to the inferior quality of products management face the problem.

❖ **Human Resource Problem:-**

1. Low Skills Level of Workers: - Low skill labour is present in the villages along with illiteracy.
2. Negative Attitude: - Most of the People having negative mindset about Entrepreneurship

❖ **Others Problems:-**

1. Political & Structural Problem:- In villages there is a GramPanchayat who is the responsibility to develop village area supply all necessary facility to the entrepreneur but sometimes politics in village make the entrepreneurship failure
2. Poor Knowledge in the Maintenance of Account: - Entrepreneur faces the problem of maintenance of accounts.

There is one more factor that discourages the farmers that is inadequate insurance to the Crop, Horticulture, Poultry, dairy, sericulture, and aquaculture industry. Any losses to this business, Insurance Companies should come out openly to help the farmers but unfortunately it is missing in our countries. There are many farmers who discourage due to loss of crop by the wild life especially in Vidharbha region. Forest department has not strengthened the mechanism to compensate the loss. Researcher is studding on the Micro insurance products and how far it is effective in respect of compensation to the Crop loss but picture appears to be negative. Researcher want that review mechanism should be strengthen so that necessary amendment can be done in various laws to help the rural poor in the Country.

Conclusion:

1. Entrepreneurship in rural India plays a vital role for rural economic development they contributed to make themselves reliant. Many schemes run by governments support entrepreneur to expand existing business and start new business grap the opportunities in the markets make India's rural economy self-reliant.
2. Entrepreneurship contributed to large extends to rural economy infrastructure development so many facilities provide to rural people. Mahatma Gandhi said that," India become a develop country only when rural area get develop." Because more than 50% of population resides in villages
3. As we discuss above 25-30% of GDP contribution of a rural economy. In terms of small scale industry agriculture and allied activities, handicraft, kutirudyog etc.
4. As we discuss above, employment opportunity generate large no of people in rural India. Especially women, land less farmers etc.
5. Rural Entrepreneurship faced many problems when they get engaged in entrepreneurship activities, lack of fund, infrastructure, skilled labor, market sometimes inferior quality of raw material
6. Entrepreneurship plays crucial role in creatingself-reliant Bharat

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Innovation in Education System

Dr. Ninad Kashikar
Asstt. Professor Kamla Nehru Mahavidyalaya, Nagpur ,Ph. No. 9822473191
Email Id ninadkashikar@yahoo.com

Abstract

Innovation in educational systems is vital to improving the school's efficiency and productivity in the 21st century. The implementation of innovation in education will ensure that the existing educational system will produce skilled and knowledgeable students to fulfil existing and future industrial needs. However, the implementation of these concepts is still debated among scholars nowadays as it still blurs in concept, definition, and applications. Therefore, this paper tried to provide a single and suitable definition for innovation in educational purposes. It also aimed to give a slight view on the type of innovations in education, identified the differences between the concepts of innovation in education with technological advancements, and to identify the barriers for the implementation in innovation in educations.This article will contribute to the development of innovative concepts in educational institutions and public relations.

Keywords: educational innovation, school change, types of educational innovation, barriers to innovation.

Introduction

Education as a social institution is necessary in all countries for society to survive and meet its needs. Education must not only be broad, accessible and exceptional, but also constantly evolving to meet the needs of a rapidly changing and changing global environment.

The educational system needs to be designed to nurture creative and critical thinkers that focused on contributing knowledge to society. Problem-solving, knowledge building, collaboration, expert engagement, self-regulation, and the application of technologies are the learning outcomes of 21st- century education. The evolvement of the education system must be systemic, consistent, and able to measure. Lecturers, teachers, researchers, administrators, and policymakers are all required to improve the teaching and learning philosophy and practice, or other aspects involved in the process of teaching and learning to ensure that the student meets the quality of life and work. It is said that the force that will take the global society to the future is knowledge, and innovation. The globalisation had placed a strain on education to build a creative and innovative workforce, to achieve a competitive advantage. Therefore, it is shifted to current focus to innovation. Globalization has also stimulated education companies to offer innovative education products, procedures and market models to bid with increasingly savvy global customers.

Innovation involves moving from what we do now to creating new concepts that allow us to do our work differently. Current teaching methods do not provide students with the ability to use knowledge to solve problems after leaving school. Education has not paid much attention to learning itself and overlooked the importance of learning to solve problems. Innovation breakthroughs will transform learners from simply using knowledge to creating new ones, making them central to the educational environment. It is emphasized that innovation in education is essential to improving education. Innovation will increase the country's efficiency and improve the quality and equity of education. Productivity and efficiency are key issues in education today.

Efficiency is calculated using differences in capital expenditures and student achievement and equity outcomes. The biggest productivity and efficiency challenges in education arise when comparing the education sector to other industries such as the healthcare sector. Advances in technology have affected the health sector as much as they have affected education, but they have done better than education. Innovations in education have been a common topic of public debate, but are nonetheless inherently ambiguous and realistically ambiguous. Innovations in education must bring about desirable and valuable changes in order to be called innovations. In most cases, these innovations will not be approved by a diverse group of people. Innovation should be able to improve the current situation compared to the previous situation.

Innovation is always based on experimentation and knowledge improvement. It is a changing process and practice. Its purpose is to improve the quality and performance of a service, product or process. However, a major challenge associated with transforming education is the lack of data. Current research on innovation in education often focuses more on research and development (R&D) and patent spending or innovation data collected from company surveys. This action is not sufficient to address the critical challenges of educational innovation.

Another challenge facing educational innovation is definition- Innovation goals require different types of innovation. Innovation is not a linear process. Instead, it is a complex product made up of many actors such as researchers, teachers, educational institutions, governments or other stakeholders The concept of innovation has been discussed, developed and defined in various disciplines such as anthropology, economics, psychology, business administration, linguistics, cognitive science, philosophy and many others. Therefore, there is currently no single definition of educational innovation. It is said that the difficulty of defining innovation is because it was challenging to describe and measure innovation when the objectives and activities involve are not define accurately. Therefore, the objectives of this paper are to define the innovation in education, identified types of innovations in education, and the barriers to implement it in education.

Definition of Innovation in Education

The discussion on the definition of innovation sometimes mixed with the concept of the invention, change, and reformation in education. Some scholars also define innovation in education as a process, and some even explain it according to innovation theories in business development. These various definitions of innovation in education are very confusing when we try to discuss innovation in education.Currently, the best-known definition of innovation in education comes from the Oslo Manual Innovation is defined as the implementation of new or improved products, services, offerings, marketing strategies or new organizational strategies, external relationships or workplace organization.The definition of innovation can be applied to education with minor modifications. Innovation in education as the introduction of improved or new processes, products, services, new ways of managing activities or new marketing approaches. However, according to some scholars in the field of education, this definition of innovation cannot adequately describe educational innovation.\

We can also distinguish between innovation and reform and change. Innovation is defined as the implementation of new and better ideas, practices and knowledge. Reform, on the contrary, systematized and meticulously carried out the process of making change. A change is therefore a planned or unintended transformation or modification.

Organizational change usually occurs at the macro level, involving change throughout the organization, with major subsystems rather than smaller workgroups and individuals. Innovation, on the other hand, is usually about localized impact on an organization.Change is necessary for innovation, but not a condition for innovation.

It is also said that the term “educational innovation” is sometimes confused, sometimes understood to describe and evaluate, and sometimes to mean improvement.The definition of educational innovation is different from educational innovation. Education innovation has a broader definition than education innovation. Definitions include education, social, scientific and technological, economic, administrative and other innovations. Scientific and technological innovation is the result of R&D of intellectual property transferred for implementation and application. On the other hand, social innovation consists of social support for students and teachers. However, educational innovation can be defined as a method or procedure in educational activities that differs from conventional practices, the goal of which is to increase the effectiveness of education in a competitive environment. Innovations in education consist of scientific, methodological, technological or pedagogical innovations. Innovation is not just invention, on the contrary, it is a cycle consisting of several stages and the collaboration of many stakeholders. Most scientists agree that in order to be called an innovation, an innovation must deliver improved results

Educational innovation as new products, new processes, new ideas that change people's perspective on a problem or question, rethinking our ideas about what is possible, and innovation at the platform level. The platform-level innovation referred to here is a common concept architecture consisting of a framework, a set of definitions, protocols that provide a framework to which standard and modular components are connected. The words of practice, an idea or an object does not define the innovation much in the idea of perceived by newness for adoption. Hagreaves (OECD) defines innovation as individual creativity and creative thinking to solve the existing problems differently and theoretically better ways, far from the original methods. While this definition sheds some light on the definition of innovation by referring to change, new and better results, and most importantly, a successful idea or practice, this is still not sufficient in the field of education. Therefore, according to Smith (2006), the definition of educational innovation should focus on the innovation process. Innovation must be allowed for evaluation with respect to the integration of innovative technologies, approaches or resources into learning activities. This will create a solid foundation for policy makers, students, teachers, educators and other stakeholders who can influence the direction of education.
Innovation should always be linked to ideas playing with new ideas. It will provide some space for practitioners to evaluate and reflect on their existing methods in teaching and learning and decided if innovation needed.

Innovation is a process of organizing and sustaining the combination of concepts, actors, and practices to address specific problems. According to Smith (2006), there are five interrelated moments together with this concept, which are; 1) innovation as a process, it is different from invention; 2) the process is both dynamic and social at the same time, it involves the discussion to recruiting new entrants thus retaining the current players in the innovation sector; 3) the basic concepts for innovation are ideas, players and practices together in a novel way; 4) the main objectives are to address the problems, issues or crisis that arise; 5) since it is only targeted at specific problems, it is mostly subjective in its novelty. The new alignment of practices, ideas, and players are only treated as a novel in a specific location, time, and context. The innovation process must involve five steps, called the innovation cycle. This cycle consisted of clear about the problems or issue that need to be solved, idea generation based on experiences and situation to solve the problems, this idea then had to be refined and tested, provide and share the evidence and facts, and there is always allowed for feedback to enable the continuous improvement in that particular innovations. According to Wai (2017), this innovation 'platform' and 'process' must be aligned with the existing innovative teaching and learning in the classroom, and also must have impressive networking to produce a massive impact in education.

The other definition of innovation in education is as a concept (Findikoglu& Ilhan, 2016). According to them, innovation is a concept that connected societies and future economics. It is a way of finding the best alternative ways of changing individual behaviors' in the individual when the existing ways such as learning theories, learning tasks, teaching methods, and learning approaches are not working effectively.

According to Collingwood (2006), innovation is not only a mechanistic process but also a developmental one. This has changed not only innovation but also acceptance systems. Planning for innovation in education systems is a management process that consists of the nature of the innovation, the environment in which it occurs, and the characteristics of potential users.

Thus, the efficiency in education generally measured by the amount of time spent, resources, and cost of money involved to achieve the targeted results. If we can achieve the result with less amount of time, less money involved and overall, less effort put into it. Then productivity will increase.

As mentioned above, we can summarises the approach of the definition of innovation in education into; a) innovation in education is the introduction or implementation of new products, new processes, new approaches, new methods, new administration approach, or anything new introduced in educational areas that brings a massive impact of improvement in producing quality students; b) the introduced innovation must be good enough to minimise the time, budget and resources spending to obtain the desired results; c) the innovation must be accepted and supported by all stakeholders in the educational system; the learners, teachers, parents, researchers, educational administrators, policymakers or communities. This definition does not define innovation in process, product, or concept, as mentioned above, because innovation happened in every stage of education.Thus, innovation can be characterized according to its concept, the stage in which it occurs. Whether it is at the conception stage or at the implementation stage, the level at which innovation occurs (whether in a small group of teachers or at the management level) or type of innovation can be disruptive. It can be gradual or radical.

Innovation and Technology

Technology is a major driver of innovation. Many articles have discussed innovation in terms of technology. It is stated that innovation does not necessarily mean the adoption of the latest technology. According to them, innovation and technology adoption are two interchangeable terms. Innovation in education is therefore seen as the use of technology itself. Innovation is not just the introduction of the latest technology. This should be embraced as a process that provides an engaging learning experience for students who use technology. The use of ICT alone in teaching and learning is neither an absolute innovation nor a major goal of education This will make the learning process easier or make the structure of the content delivered to students much more expressive and understandable, and will certainly save more time and resources compared to traditional methods.This gives teachers more time to plan other class activities for review and implementation.

There no significant improvement in mathematics and literacy achievement using the advancement of ICTs across the majority of OECD countries, although the differences in national revenue and socio-economic standing have been taken into considerations. This weak performance is due to the schools and educational system not yet identified the technologies potential, the restricted abilities of students and teachers, the difficulty in identifying quality and useful software and resources, learning goals is unclearly defined, and lack of preparation on how to incorporate technologies into teaching and learning process and learning process. When the planning focused more on the technology, we may miss out on the leading player in the process, which are the teachers and learners.

The problems of educational technology in innovation are twofold. First, any incorporation of technologies in the phase of teaching and learning is intended to improve the efficiency of teaching and learning.However, this can only be achieved if effective pedagogical theory is used as the basic framework for these implementations. Second, the introduction of technological innovation will undoubtedly make a difference and lead to educational innovation. However, this is slower and more difficult, and sometimes there will be more financial, human resource or technical losses before ultimate success is achieved. Educators must recognize that computers cannot replace humans.

Thus, the implementation of technological innovation must go hand in hand with the existing leadership, pedagogical theories, and research in education. That even digital technologies could not transform education, but it still has a substantial potential impact on the learning and teaching process in schools and can open up a new perspective in teaching and learning processes. The integration of new modern approaches is the most prominent challenges compare to technological barriers.

These advancements of technologies that drive innovation in education do not come with only a positive impact on education.The users of the technology widely would have both negative and positive impacts on student's memory systems and attention. It is also noted that the introduction of modern media into education, especially computers, will impair our ability to think, remember clearly, and write or read with concentration, as all these activities require creativity. There are many side effects discussed on the technology enhancement in education involving the social, culture, and psychology. One of the apparent effects is the promise of unrealistic hopes in technologies to solved every teaching and learning problem in education. This effect will lead to weakening the student's and teacher's efforts and, without realise had taken the teachers out of the process

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These interactions are necessary for student development. Online learning also required well-developed students with critical thinking, advanced reading and writing skills, technical skills to conduct research, higher self-efficacy than most, motivation and perseverance. Almost all younger students do not yet possess these qualities. So while innovative technologies seem to bring improvements in some areas, they are still not the only way to increase the efficiency and productivity of the existing education system.

Types of innovation in education

Innovation can be categorized into four types, which are process, products, organisational, and marketing innovation. Product innovation is the execution of services or goods in education that improved from its original characteristics or use. It includes the major changes in materials and parts, product features, user-friendliness, existing software, and other functions. Process innovation is the execution of the new or substantially better delivery services or products that incorporated major changes in software, types of equipment, or techniques. Meanwhile, innovation in marketing is the new marketing approach that emphasizes the changes in product design, product placement, product packaging, product pricing, or promotion.

Organisational innovation is the introduction of new organisational approaches or strategies in business, workplace structure, or its relationship to other organizations. Innovation in education can be categorized into four types which are; 1) introduction of new services or products such as new curriculum, educational resources or textbooks; 2) introduction of a new process in delivery the services such as the use of technologies in e-learning activities; 3) introduction of new approaches in activities organization such as the use of ICTs to interact with parents and students; 4) introduction of new marketing techniques such as the cost for each course in university.

Some of the educational scholars define the type of innovation based on innovation theories. Smith (2009) stated that there are two types of innovation in education that are disruptive and sustaining.

A disruptive innovation is an out-of-the-box innovation. This is another practice of serving a group of people. It creates new structures, ecosystems and architectures for old practices. Continuous innovation is innovation that improves an existing product, process or service. It is said that innovation in education should have the characteristics of both sustaining and disruptive innovation.

Thus, fundamental changes and fundamental improvements will be made in the existing education system. Innovations in education are technical innovation, conceptual innovation, and relational innovation. Technical innovations include the use of various new technologies in education; conceptual innovations are the introduction of new courses, new educational methodology, or new educational programs; relational innovation is the better way of establishing and communication interactions inside or outside educational institutions. Innovation in education could be categorized as either disruptive, revolutionary, evolutionary, or sustaining. Evolutionary innovation will lead to continuous incremental changes. The revolutionary innovations will change the system completely, restoring the outdated systems with a better one within a limited time.

Meanwhile, the sustaining innovation linked to the achievement, such as the continuous enhancement in the instructional. The disrupting innovation will change the whole system, such as a national curriculum reformation. Innovation also can be treated as tangible as technological resources or intangible in approaches, methods, or techniques.

Evolutionary innovations in education consisted of the introduction of new multimedia materials, new mnemonic techniques, more efficient teaching strategies, the introduction of few learning strategies such as case study, inquiry-based, problem-solving, small group discussion or collaboration. Meanwhile, the application of educational technology in education can sometimes be evolutionary and sustaining at the same time because it is only involved in a minor change in certain aspects of learning.

The transformation or reformation of the educational system and online learning always in revolutionary innovations as it will completely change the whole system.

According to another author there are three types of innovation in the internal environment of education which are the educational innovation, administrative or managerial innovation, and ideological innovation. Educational innovations are the innovation that happens in teaching methodologies, the curriculum content, high professionalism of the teaching staff, organisational and methodological support of the educational process. Administrative or managerial innovations are the support given to educational institutions structures, management at the subdivisions such as faculties or departments, general management systems, and its' structures, or the delivery system of the educational services quality.

Meanwhile, ideological innovations are the participation of educational institutions in specific programs, events, or competitions held by the government and the ministry of education.

All the discussions above lead to the perspectives of the own scholars to define the type of innovations according to what they believed. However, innovation in education defines before is the new product, process, methodology, or anything new that brings significant changes to the educational system. These changes can happen either in incremental, radical, evolutionary, revolutionary, sustaining, or disruptive. It also can happen in every level of educational institution either in a small group of educational, department or faculty levels, administration, organization, or at a national level.

Limiting innovation in education to specific types of innovation is misguided because it limits the nature of the innovation itself.

Barriers to Education Innovation

A key feature of innovation is the introduction of new changes to old ones. Sometimes changes benefit an organization or group, while others negatively affect the system. Therefore, introducing innovation into an outdated and rigid system, especially the education system, is sometimes frowned upon. The greatest barrier to educational innovation is the direct exposure of both students and teachers to change. This disapproval can occur when an innovation results in radical change but without meaningful results or outcomes. Innovations should be evaluated prior to implementation. All stakeholders must provide evaluation results. So you can decide whether to accept or reject the new changes. Conversely, this is not what happens in the real world of innovation. The outdated and traditional structure of the education system is a major barrier to innovation in education.

Barriers to innovation are lie in the traditional political and structural arrangements in education, the market dynamics that unsupportive to innovation, and the broken R&D cycle in education. The lack of clarity on the problems to be solved, ideological disagreement between the purpose and role of public education, states' rights, and parent rights creates confusion among the policymakers and inhibits innovations. Innovations are rarely translated into policy changes in education and a little support by the governance makes it harder to implement. In market dynamics and incentives to promote innovation, there are large companies that monopoly the whole market. Small businesses may not survive even if they creategreat and effective innovations. Schools or educational institutions with limited budgets and financial plans are well known. It's difficult to introduce technology into an education system if maintenance or upgrades don't go hand in hand. Teachers can choose not to use technology that becomes outdated over time. Teaching professions, school leadership and educational administration are created for licensing and promotion. Therefore, there is no incentive to try innovative practices to improve student outcomes.

Conclusions

Innovations in education can only transform the educational system if there are widely accepted by the students, teachers, administrators, communities, and any stakeholders related to the educational system. The introduction of the innovation must have a significant impact on the educational system or achieved its objectives. It is not only applied to educational technology innovations but also various types of other innovations. Innovation generates such a powerful impact on promising a newer, better, and improved educational system for a better future. Finland, Singapore, China, and Hong Kong are the example of the few countries that make innovation as their core transformation and succeed in achieving a higher result in student's performance.

However, many problems were encountered in the early days of implementation. A professional culture that supports school innovation, teacher reflection, and meaningful debate about

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new pedagogies has been shown to lead to higher levels of innovative pedagogy. Schools, teachers, administrators, and students must be given alternatives and time to accept or reject innovations in schools. In the school context, innovations that emerge from school needs will yield better results than external innovations . Teachers and students must be at the center of these innovations. Teachers need to reflect on their learning and come up with innovative solutions to problems in the classroom. This will indirectly empower teachers and improve the quality of education. Education systems must be bold enough to give teachers more autonomy in determining their own teaching and learning processes. All of this must be supported by school leadership, culture, administration, parents, community and government.

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A Study On "Insolvency And Bankruptcy Code 2016,And Its Impact On Non-Performing Assets"

Mrs. Nisha Vyas
Research Scholar, Smt.Kesharbai Lahoti Mahavidyalaya, Sant Gadge Baba Amravati University

Abstract

The review of the study examines the theoretical and empirical research on the causes and effects of the banking crisis, and it summarises the implementation of the insolvency and bankruptcy code to harmonise all insolvency and bankruptcy laws and to address the issue of non-performing assets (NPA), which has been a major concern.Years of economic decline in India. India's financial system needs urgent reforms as a result of banks' irresponsible lending to large borrowers who are unable or unwilling to repay their obligations, which has led to a serious crisis.Due to this, many loans have become non-performing assets (NPAs). They are frequently characterised by credit boom-bust cycles and boom-bust cycles in asset prices, and they are typically resolved by extensive government intervention. The article's conclusion notes that one of the major issues that has an affect on the entire banking industry in India is the NPA problem. However, it is also true that India has expanded its banking infrastructure to the furthest reaches of the nation, which has been essential to promoting financial inclusion.With the development mission in mind, it has been effective in developing sound credit and monetary policies. In order to attain the historic 10% growth rate, the Finance Ministry and RBI should coordinate their fiscal and monetary policies, and the government should give this subject the consideration and attention it deserves for a stable economy.

Keywords: Bankruptcy, Financial Inclusion, Non-Performing Assets (NPA), and Insolvency Law

1.Introduction

The businessman encounters many obstacles when conducting business. The biggest challenge they face is a lack of money. Every nation tries to set up numerous institutions that can lower their barriers in order to aid in the ease of doing business. One of the institutions is a bank, which offers financial assistance to those in need in exchange for a security. When a borrower doesn't pay back the loan, the bank may end up with a sizable bad loan and stressed assets that turn into non-performing assets. Under different legislation, including the SARFAESI Act, the bank has numerous powers to recoup that overdue payment.The purpose of the Insolvency and Bankruptcy Code of 2016's adoption is explored in this article, along with how it has affected the banks' NPA recovery method.

2. Research Methodology

i. Usage of Scientific method and descriptive method for analysis
ii. Usage of Secondary data.

2.1 Objective of Study

1. To study the concept of non-performing assets and the laws governing them;
2. To analyze the problem with the DRT; SARFAESI ACTS and various other laws relating to Bankruptcy
3. To evaluate the need for introduction of the Insolvency and Bankruptcy Code 2016;
4. To evaluate the impact of the IBC code on the banks NPAs recovery
5. To analyze the current position of India and Banks NPAs recovery.

2.2 Hypothesis:

The bank has benefited from the Insolvency and Bankruptcy Code. In contrast to SARFAESI, cases resolved by the NCLT under the bank have resulted in banks receiving a sizable recovery, and cases resolved by the NCLT also take a lot less time to resolve.

3.History of Non Performing Assets classification:

There was no system of classification of assets into loans and advances before 1985 in the Indian banking system. The recommendation of the Ghosh Committee on final accounting system led to this classification of assets which was known as 'Health Code System. Under this the loan accounts were further divided into different eight categories. But later on it was recommended by the Narsimham Committee on financial system that this classification of asset, as compared to their health system is not at par with the international standards. So they suggested that the banks should classify their advances as standard assets; sub-standard assets; doubtful assets; and loss assets.

3.1.Bank loan assets are divided into two categories:

a. An asset that is performing and paying regularly is referred to as a performing asset. It indicates that the borrowers are paying back the bank loan.

b. Non-performing Assets: Assets or leased assets that are losing their ability to make money for the bank because the borrower is not making interest or principal payments.

3.2.Non-performing assets are further classified into:

i. Sub-standard assets: Assets or loan account which remain Non-performing for year or less than a year. And in such cases the current market value of security charged are not sufficient to ensure recovery of debt and the account will fall under loss if deficiencies are not corrected in time.

ii. Doubtful asset: where the asset or the loan given remain Non-performing beyond one year and the recovery is highly questionable and seems impossible.

iii. Loss assets: here the asset is considered to be uncollectable and unrecoverable. But it is not wholly written off by the bank. it remains to be bank asset though it seems very less chance of recovery.

3.3. Regulation Mechanism for Non-Performing Asset Recovery:

The Reserve Bank of India, India's top regulatory body, has properly registered both the bank and the financial organisation. Accepting deposits and lending money to any type of corporate entity or individual are the two main duties of a bank. However, not every business or person pays back the full amount or even a partial payment, which after accumulating takes the form of a non-performing asset. The bank makes an effort to collect this money from the borrowers, but when, after numerous reminders and notices, the borrower refuses to pay or does not pay, the bank uses the Civil Court to seek recovery.However, it was a little challenging to collect the non-performing assets in a timely manner because there are already open cases in the Civil Court. It used to take a while. A committee led by Mr. T. Tiwari was then appointed by the government, and it made the recommendation to create a quasi-judicial body that would only deal with the banks' and financial institutions' NPA recovery issues. The Recovery of Debts Due to Banks and Financial Institutions Act 1993 was introduced as a result in 1993. To launch a case under DRT's exclusive jurisdiction, the debt must be greater than Rs. 10 lakh.However, this too did not prove to be of much use as these gradually were overburdened by the enormous number of cases that were sent to them. Since the beginning, the bank has felt severely crippled by the lack of any authority to seize assets that have been charged to them. The growth of the 2002 Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act was made possible by all of these issues. This law helps banks and other financial institutions to realise long-term assets, address liquidity issues, and undertake measures for recovery or reconstruction by allowing them to seize securities, sell them, and reduce non-performing assets.Thus, the recovery mechanism which is there are:

- LOK ADALAT
- RDDBFI (DRT)
- SARFAESI ACT

As we can see, there were numerous problems, including the existence of different legal forums, overlapping laws, and contradicting rulings. As a result of all of these problems, the NPA recovery process was severely hampered and delayed. There was also very little legal obligation placed on borrowers because of a lack of solid support[14]. It was discovered that the SARAESI Act, BIFR, DRT, and SICA were insufficient to address the settlement of stressed assets in the system. One law was strongly needed rather than several laws, there was a need for less confusion and more coordination, and the fastest possible recovery time was the most crucial demand.In order to get beyond all of these obstacles, the government introduced the Insolvency and Bankruptcy Code Bill in 2015, which was later passed and put into effect in 2016. The greatest course of action to quickly reverse the slow recovery was thought to be the implementation of the IBC. The legislation aims to improve the economy's credit and compliance culture and to foster a climate for timely settlement.

The laws relating to insolvency have been combined, updated, and reinstituted. SICA, RDDBFI Act, RDFAESI Act, and the Companies Act 2013 were all amended.

4. The Insolvency and Bankruptcy Code 2016:

In order to get beyond all of these obstacles, the government introduced the Insolvency and Bankruptcy Code Bill in 2015, which was later passed and put into effect in 2016. The greatest course of action to quickly reverse the slow recovery was thought to be the implementation of the IBC. The legislation aims to improve the economy's credit and compliance culture and to foster a climate for timely settlement. The laws relating to insolvency have been combined, updated, and reinstituted. SICA, RDDBFI Act, RDFAESI Act, and the Companies Act 2013 were all amended.

4.1.There are four pillars of IBC are:

i. The Indian Insolvency and Bankruptcy Board (IBBI)

The Insolvency and Bankruptcy Board of India oversees this code. The other pillars of the IBC, including the Insolvency Professionals, Insolvency Professional Agencies, and Information Utilities, are overseen by this board. This board has a common seal and everlasting succession. It has the authority to own, dispose of both movable and immovable property, and contract. Everything shall be done in accordance with IBC code provisions.

ii. Insolvency Professional

An individual who has registered as an insolvency professional with the board and is a member of an insolvency agency is referred to as an insolvency professional. Prior to now, the independent professional selected by the committee of creditors has control and management of the business, which was previously in the hands of the business owner. The role of the insolvency professional is to act anytime a corporate debtor is the target of a bankruptcy, insolvency, liquidation, or fresh start process.

iii. Information Utility:

A person who has registered with the board under IBC Section 210 as an information utility. The purpose of the IU is to produce and preserve financial data that can be readily accessed on debtand business defaults that are being resolved[25]. It must accept the electronic input of financial data from individuals who are required to do so in accordance with section 215 of the code.

IV. Adjudicatory Authority:

Depending on whether an entity has unlimited liability or limited liability, there are various adjudicating bodies. As a result, the Debt Recovery tribunal will be the deciding body for partnerships with unlimited liability as well as individuals. If the party is unhappy with the DRT's order, they may appeal to the Debt Recovery Appellate Tribunal. The National Company Law Tribunal will also be the entity responsible for making decisions on corporations and limited liability entities.

4.1.The code's efficient mechanism is:

i. Time Bound

The fact that this code is time-bound is its best feature. The code stipulates that the full resolution procedure must be finished in 330 days. In addition, if the process is not finished within the allotted time, further 90 days may be granted. The resolution specialist must also provide a written justification for the delay. The mechanism has been sped up by doing this.

ii. Default Amount:

According to this law, default refers to any installment that is due from the debtor or corporate debtor but has not yet been paid, whether it be in full or in part. The default sum for the start of a legal action under the IBC code should be Rs. 1 crore[31]. Prior to the 2020 amendment, it was 1 lakh; now, it is 1 crore.

5. Impact of IBC on Bank Non-Performing Assets:

Before the IBC was passed, as is already known, there were various statutes for recovering the debt. There was the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act of 2002, as well as the Recovery of Dents owing to Bank and Financial Institution Act of 1993. These two acts allow banks to file a lawsuit against a debtor to recover unpaid debts. Other laws, such as the Sick Industrial Companies Act of 1985 and the Companies Act of 1956 (winding up clause), allowed bank and non-bank creditors as well as corporate debtors to seek judicial intervention for a collective resolution of insolvency[32]. There were further mechanisms as well for corporate debtor restructuring.

Following the implementation of the IBC Code, it is specifically stated in the Eighth Schedule of the IBC that cases that are already before the BIFR and AAIFR but are re-initiated before the NCLT under the IBC would be alleviated. 180 days from the start of the IBC 2016 must pass before the case under IBC can be started. Additionally, cases that were admitted under the Companies Act 2013 or winding up matters that were before the High Court are eligible to be started over under the IBC.

All creditors, both financial and operational, whether banks or non-banks, may file a corporate insolvency action under Section 6 of the IBC. Additionally, a certain time frame has been mentioned, i.e., the process must be completed in 330 days. Therefore, even non-bankers who are dealing with lengthy delays can file a complaint before the NCLT, forcing banks to take part in the proceedings. IBC is therefore feasible for current NPAs on a broad scale.An automatic moratorium period for the 180-day length of the IRP will begin once an Insolvency Resolution plan for a corporate debtor is accepted by the NCLT.

A committee of creditors will be established, made up of all of the company's financial creditors. The company's resolution plan is then approved by the COC with a 75% super majority vote by value. All cases that are pending in various forums must be dropped if the plan is approved by the COC and the NCLT, at which point the resolution plan will be put into action. In the event that the COC does not approve it within 180 days, the NCLT will issue a liquidation order in accordance with IBC Section. Therefore, once the liquidation process started, all recovery would be achievable only through the liquidation process, while all mechanisms and recovery processes used in previous forums would cease.

6. RBI recommendations for applying the IBC to NPAs:

There was a great deal of discussion when the RBI released one circular in 2018. If the bank is unable to implement a resolution plan within 180 days of the default, the RBI mandated that all banks and financial institutions begin a corporate insolvency resolution plan against the borrower (the defaulting firm) who has a loan exposure of more than Rs. 2000 Cr.According to the circular, banks were required to quickly identify and classify stressed assets as special mention accounts, report to the RBI, and put resolution plans into place, even if there was only a single day's worth of late payments.

7. NPA cases solved through NCLT under the Insolvency and Bankruptcy Code 2016:

Numerous non-performing asset matters under the IBC have been resolved through NCLT. Among them are:

Case No. 1: Bhushan Steel

It was one of the significant non-performing cases that the Reserve Bank of India submitted to the National Company Law Tribunal for settlement under the insolvency law. Due to unpaid liabilities totaling thousands of crores of rupees, the bank took Bhushan Steel to bankruptcy court in 2017. Tata Steel afterwards purchased Bhushan Steel. The total amount claimed in these cases was 56,022 Cr. And 35,571 crore was the total amount realised. Recovery was 63.5 percent[42].

Case 2. Essar Steel

The Supreme Court's decision not only gave dissatisfied banks hope, but it also encouraged money to be recovered through the constantly changing Insolvency and Bankruptcy Code[43]. Arcelor Mittal bought the assets of Esser Steel. The claimed amount was Rs. 49473 Cr. In addition, Rs. 42000 was recovered. There was a recovery of 84.89%.

There have been numerous instances where banks have successfully recovered a sizable sum of money in various circumstances. One such instance is Jyoti Structure Ltd., which was purchased by a group of HNIs and had a recovery rate of 50.12.Banks also received 26.26 in Monnet Ispat & Energy, which was acquired by a consortium of JSW and AION Investment pvt ltd.Alok Industries Ltd. had the lowest amount recovered. Only 17.11% of the total amount claimed was recovered by the banks.

8. Findings:

1. According to the Economic Survey Report 2020, India's resolution procedure has improved thanks to the Insolvency and Bankruptcy Code compared to other preceding mechanisms. As opposed to

14.5% under the SARFAESI Act, the recovery rate for NPA proceedings under the IBC is 42.5% of the amount at stake.

2. According to the Economic Survey Report 2020, disputes are now handled under the IBC in 340 days as opposed to 4.3 years ago when a different process was used.

3. According to the World Bank's "Ease of Doing Business"2020 report, India has climbed 14 spots to 63rd place from 77th place in 2018. India's position in the index for resolving insolvency increased by 56 spots from 108 to 52 in 2019.

4. The recovery rate increased from 26.5% in 2018 to 71.6% in 2019[52]. Additionally, recovery time has decreased from 4.3 years in 2018 to 1.6 years in 2019.

5. One of the Top 10 Improvers is India.

9. Conclusion and Recommendation:

The research demonstrates that the IBC has positively impacted the Indian economy as well as banks by taking into account the number of cases completed, the time required to address such dues, and the percentage of recovery made. When compared to the period before IBC, the time required is also relatively short, and the amount that the banks have recovered is fairly good. The code has been implemented well and correctly. The Insolvency Code will benefit the Indian economy and boost foreign investment if this trend is allowed to continue in the future as well. This will make conducting business even easier.

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Role Of ICTs in the Student Centered Process of Teaching and Learning

Dr .Nitin Manikrao Shewane
Assistant Professor Dept. Of English VMV Commerce JMT Arts JJP College, Nagpur-440008

ICT in the Student Centered Classroom is a scientific and controlled technology of audio-visual aids in handling its application and interrelation with social, cultural, literal, critical, comparative matters. Information and Communication Technology (ICT) has been an inseparable part of our lives for the last few decades, especially after the Covid-19 epidemic period, offering our society its benefits not only in business but also in personal life. Actually, ICT is not static & stable; rather, it is always innovative. Thus, its use in the education world keeps it always innovative and sustainable. During the course of the crisis, ICT was the only medium to sustain the education process. It is an equation with a competent teacher that he/she is skilled and well-versed with the current technological teaching aids. Today's young generation is used to electronic gadgets for which a competent teacher needs to gain various skills and teachings for successful learning of pupils. In modern science and globally connected technological societies, education demands more knowledge of student-centered teaching regarding the updated and sustainable knowledge of ICT and skills to use it in the process of teaching and learning, where student can learn as per his/her abilities or speed. The use of ICT has completely changed the look of class rooms, the objectives of curriculum, online education, and online lectures. For educational learners, ICT provides tools for enhancing learning on real world problems, research projects presentations, data collection, receiving individual feedback, etc.

It also helps the parents to come together with their ward and instructor in the process of continuous education and learning as per their abilities. In the higher learning sector of India, teachers or instructors in classrooms must realize the use of ICT in the zone of their subject to help the learners learn more efficiently. Thus, the awareness of the use of ICT is indispensable for classroom instructors (teachers), which will help them to know integrated technology with classroom teaching. So, the paper intends to discuss the function of ICT in Student Centered Classroom of higher learning.

KEY WORDS: ICT, Technology, Student-centric, virtual-memory, language-lab, web portal.

ICT in Education:

If English is the window of the world's knowledge, ICT makes it true and easy. Every aspect of life in this globally accelerated 21st Century can't operate without the use of ICT. Emerging technology of ICT, i.e., the next generation of software, provides multiple academic platforms to access learning. It enables adult learners and traditional pupils to access learning opportunities as per their capabilities and availabilities i.e. apart from the traditional barriers of time, place, and speed. It also benefits distant educational learners who are in a job or have dropped out of education but want to continue it after a long break outside educational institutions. Thus, it is useful for those business tycoons who are well-versed in their business but want to be well-versed in studying and spreading their business throughout the world without any geographical boundary barriers. The traditional way of learning takes a student to an educational institution but ICT makes it possible to reach the student anywhere and anytime. Mobile phones, computers, the internet, software, laptops, wireless networks, virtual memory storage, instant messaging, video conferencing, audio recordings, social networking and other communication mediums help to carry education to the pupil rather than the traditional way of learning. Thus, with the help of ICT, it is easy to change conditions, possibilities and limitations with the student-centric approach of teaching and learning.

At present, the globally acknowledged backbone of education is technology. Scientific knowledge of technology is indispensable in every branch of education: Arts, Commerce, Science, Medicine, Law, etc. All branches of education are able to receive and give knowledge through the medium of language. ICT plays the role of a catalytic agent to infuse technology into the particular knowledge and make it more imperative and effective. With the help of ICT, education has become

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more effective than in the past. Researchers, academicians, entrepreneurs provide opportunities for all educational aspirants to learn and excel globally.

While talking about the impact of ICT on language studies rather than its impact on other areas, we find the use of ICT in language labs. However, its use in Indian classrooms is quite inadequate. There might be many reasons for that. But due to the emerging mode of competition in languages, commerce, and global science, institutions prefer to adopt ICTs. Most institutions and universities have already adopted the internet and web portals to reach every hand of the smart phone using pupils. Student-centered classrooms give new liberty and seriousness to the use of ICTs. With an instance of the Indian education system, we found that there are many education policies simultaneously working in society. As the result of different types of institutions, there is the lack of uniformity in given and taken knowledge at the level of institution. Although the scenario of classrooms has been changing with the adoption of ICT, there is a technological disparity between the progress of society and classrooms. Technology has made revolutionary changes in the ways of our social life, but at school or college level, we have not been able to catch up with such changes. The time has come to replace 'a teacher-centric approach' to learning with 'a student-centric approach' in classrooms, wherein student-centric classrooms allows pupil to learn from multiple sources. Thus, ICT, Multimedia, E-Library, Language Labs, are very essential educational aids in the education field. Similarly, a teacher in the 21st century should know the importance and knowledge of ICT, Multimedia, Virtual Classrooms, Virtual Memory, etc. So, the present study is important to show the significance and role of ICTs in the student-centered process of teaching and learning.

Objective of the Study:

- To impart the role of ICTs in the student-centered process of teaching and learning.
- To show the importance of techno-savvy teachers.

CORE BENEFITS OF USING ICT IN STUDENT CENTRIC EDUCATION:

ICT as a teaching learning aid stimulates the development of imagination as well as the initiative of school and teachers. We live in a world that is changing and developing fast, which is due to the use of technology. We can take into account the core benefits of ICT in student-centered classrooms are as follows::

- ICT enhances student centric interaction and classroom engagement for more participation in the learning process than through traditional approaches.
- It helps in systematic learning where students get inspiration to attend and advance their level, e.g. the best incredible educational apps for students.
- It is accessible beyond the limits of time and place. After Covid epidemic period, smart mobile phones, like ICT, are playing their important role in the classroom. With the help of online links, a teacher delivers a lecture, pupils attend their seminars. Students may submit their homework and assignments online. Simultaneously, it makes it easier for students to gain proper knowledge about the use of books, indexes, and content of pages or offline libraries.
- ICT offers new learning techniques where a teacher can engage pupils with ease and without a huge cost, as many apps are free for students to download.
- ICT is the catalytic agent in student-centered classroom objectives, which offers new opportunities for learners and their performance, educators and their global education.
- Irrespective of learning levels, places and background of the pupil, it provides a similar platform to adopt / acquire new skills, new competencies, collaborative attitude, team building aptitude, project management.
- ICT plays a great role in offering interdisciplinary knowledge to students consistent with their academic interests. This overcomes the limitations in the old traditional system of pedagogy where ICT used to play the least role.
- ICT's easily accessible and eco-friendly aptitude allows students to utilize their time efficiently.
- It can be useful in schools and colleges to keep staff and students updated alike; and with the help of such educational aids, we can involve their parents in the process of Student Centric Approach, so that they can be kept informed about their ward's performance in school in their online and offline studies.

- ICT based learning environment facilities' improve students individual capabilities, skills and creativity.
- ICT in a language laboratory is a very helpful tool for accomplishing and determining a student's speech in the language. It provides potentialities which grant the student to listen to ICT recorded pronunciation, and follow the same in up-gradation of one's speech quality. ICT based language lab software facilities can record their performance, provide scope for self-assessment and give trustworthy feedback. A language teacher boosts their pupil distinctively and collaboratively in the language laboratory, where every participant peruses his or her privacy to speak and listen.
- ICT makes it possible to be a part of MOOC (Massive Open Online Courses). MOOC plays the predominant role in education, especially in NEP (New Education Policy 2020), through innumerable platforms, such as Cognitive Class, Kdenza, Udemy, Coursera, edx etc.
- The Indian government launched an indigenous platform, SWAYAM, after considering the popularity and relevance of MOOCs. It is possible only because of the advanced level of ICTS. "SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) is basically an integrated MOOCs platform for distance education that is aimed at offering all the courses from school (Class 9) to post-graduation level". Thus, the student-centered classrooms extend towards them.
- Social media in higher learning in the Covid-19 epidemic period plays the role as an educational ICT for Student centered leanings. Thus, in this "new normal" time, it is unavoidable to be familiar with the structure of social networks for teachers, students, parents, institutional runners, etc.
- The current literature on ICT in various branches of studies is continuously growing along with its high speed technologies. Thus, its digital innovations must be acknowledged in student-centered classrooms where the sky is the limit for ICT-based knowledge.
- ICTs provide web-based social networks in the hands of students, wherein, knowledge aspiring students evolve their absorption and detect other similar aspirants.

DARK SIDE OF ICT-BASED STUDY MATERIAL:

The importance of ICT is always beneficial but it will be fruitful if we use it as an educational aid. Technological aids are an essential part of education policies, especially NEP, but those are not the ultimate solution to it. Technology as an audio-visual aid in the student-centric learning process has its repercussions in its boons and curses. Its benefits depend on its use. Use of technology in an excessive way leads to harmful results. While using online educational resources, one should know the complexities and copy the right issues in relevance with it. These "Intellectual Property Rights" are always in association with soft copies (text, audio, video) downloaded and shared on any socio-technological platform. Thus, it may create problems if any student or teacher shared it prior without taking it into consideration. Further, it makes the classroom-instructor a financial opportunist on an online platform where they lose human values in imparting knowledge selflessly. Under the liberty of student centered education, we know the universal dark sides of using technology. On social platforms, there are popping messages from adult (18+) websites, apps, videos, etc. Thus, it affects civilians of our society drastically.

SITUATION TO BE IMPROVED:

Compared to the education sectors in other Nations, the use of ICT in education sector in the developing country like India is very inadequate. Many factors account for this. They are as follows: insufficient funding for technological adoption, lack of proper training in ICT to the teachers on regular basis as well as to the teachers appointed on clock hour basis, lack of motivation, lack of infrastructure in rural area. Moreover, few urban institutions are adopting the use of ICTs. Especially after covid-19 epidemic such institutions made it an inseparable part of their education process.

Thus, after detailed thinking on the use of ICT in student-centered Classrooms, we can conclude that in the quest of knowledge, ICT is an indispensable part of the present education system. The ICT is being extensively used both at micro and macro level in the present educational scenario. Thus, with educational ICT aids, we can introduce positive changes at multiple levels in education process.

CONCLUSION:

In the noble task of teaching and learning, ICT helps a teacher to upgrade classrooms to the level of Student Centric class rooms. Digital classroom facilities enable teachers to apply new education policies to their pupils. Thus, with the help of ICT students, teachers and parents have been reconsidering their role in the process of teaching and learning. Many Indian institutions have started using ICT for classroom activities. ICT-Educational Aids: Laptop, LCD, Projector, Desktop, smart classes, memory disk, using virtual memory, online lectures, conferences, etc., are common for some institutions in India. So the role of ICT in Student Centered Classrooms in the 21st century gives us "Self-Directed" and motivated learning. The future of education will always be in association with information and communication technology (ICT) - Aids. It will be an indispensable part of the New Education Policy (NEP).

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A Study On Inflation Accounting And Its Relative Impact On Indian Economy

Pooja Sharma
Research Scholar,Deptt. Of ABST Rajasthan University, Jaipur
Anchit Upadhyaya
Research Scholar,Deptt. of EAFM,University of Rajasthan, Jaipur

Abstract

This study examines how the trend data of 5 years can be adjusted for inflation affects market value and its relation to stock returns on the Bombay Stock Exchange (BSE). We demonstrate the impact of applying inflation accounting to financial measurements with Ratios and evaluate the applicability of historical cost-based book value and profits that have been adjusted for inflation. The results demonstrate that inflation adjustment considerably impacts financial ratios, which may result in differing risk evaluations for the chosen enterprises. Additionally, the findings show that historical cost-based earnings and book values as well as inflation-adjusted profits have a considerable impact on value. The two pieces of information should be utilised in conjunction rather than as a replacement. Because of this, inflation-adjusted data need to be required in addition to historical cost information rather than in instead of it.

Keyword:Indian economy, inflation adjustment, market value of equity, BSE.

INTRODUCTION

Historical cost accounting misrepresents a company's financial situation during inflation. The historical cost accounting overstates profitability during a time of increasing prices, and misrepresents the relative financial strengths of enterprises. Analysts and investors can't make informed financial decisions without inflation data. Previous research on inflation-adjusted accounting numbers was inconclusive. Inflation-adjusted wages are more relevant and accurate than historical cost earnings, according to research. Due to inflation adjustments and study years,mixed outcomes in these studies may be due to consumers' limited usage of extra information and SFAS 33's applicability exclusively to big enterprises. Some studies' mixed results on inflation-adjusted Indian data may be due to estimation. These studies also examine earnings data.

Developed nations seldom have high inflation. In hyperinflationary developing economies, it's vital to evaluate inflation-adjusted market equity statistics. India is one of the few nations that have embraced inflation accounting in recent years, providing a unique environment for our research of historical and inflation-adjusted data as it pertains to stock market value. The Indian economy was hyperinflationary for two decades before 2004. High inflation corrupted accounting data for years. SEBI-India requires all listed businesses to use general price level inflation accounting in 2004. Businesses have to produce and submit 2003 financial accounts for that one-year period using inflation accounting as well as historical cost for comparison. Inflation-adjusted and historical cost accounting data are compared in these 2003 financial statements.

Earnings and book value in India are understudied. and basically it may be argued that there is no research concentrating on the determinants of equity values. Foreign research examines stock value from 1992 to 2001 (Anandarajan et al. 2006). Inflation accounting wasn't relevant throughout their sample period. Inflation-adjusted profits and book value are major drivers of stock prices in India. In this analysis, we also compare inflation-adjusted profits and book value to historical cost data. The present analysis employs inflation-adjusted financial statements. Inflation-adjusted profits and book value contain information content and may anticipate equity prices. This research found that historical cost data offers more information than inflation-adjusted data. The current study analyses disparities between stated inflation-adjusted financial ratios in contrast with historical cost financial ratios.

LITERATURE REVIEWS

Inflation is one of the factors that affect the accounting system in a country. The reviews first on value relevance are presented and later its relation ispresented in the review table.

Hung (2000) used“17,743 firm-year observations of industrial companies in 21 countries from 1991 to 1997, this paper finds that the use of accrual accounting (versus cash accounting) negatively affects the value relevance of financial statements in countries with weak shareholder protection. This negative effect, however, does not exist in countries with strong shareholder protection. These findings are consistent with the belief that shareholder protection improves the effectiveness of accrual accounting, and suggest the importance of considering shareholder protection when formulating accounting policies related to accruals”.

Suadiye (2012) examines “empirically the impact of International Financial Reporting Standards (IFRS) on the value relevance of accounting information in Turkey. Turkish listed firms on the Istanbul Stock Exchange (ISE) are required to adopt IFRS in the preparation and presentation of their financial statements since 2005. Using the equity valuation model as suggested by Ohlson (1995), firstly, the value relevance of earnings and book values of equity produced under Turkish Local Standards and under IFRS is analyzed. And then, these two periods are compared to investigate whether the mandatory adoption of IFRS has an impact on value relevance of accounting information. The analysis results show that earnings and book value are, jointly and individually, positively and significantly related to stock price under the two different reporting regimes. Additionally, the results provide that book value of equity is more value relevant than earnings. When two different reporting standards are compared, it is found that the adoption of IFRS increased the value relevance of accounting information for Turkish listed firms. This study contributes to the existing literature on the value relevance of accounting information and to the debate over the mandatory adoption of IFRS”.

Filip &Raffournier (2010) investigated “the value relevance of earnings on the Bucharest Stock Exchange. We find that the association between accounting earnings and stock returns is comparable to the levels reported by studies conducted on more mature markets, and that it is higher for securities issued by small companies. Excluding losses from the analysis increases the value relevance of earnings, which confirms the transitory nature of negative earnings, already documented by prior studies. We also find that the regression coefficient of earnings changes is negative and we provide evidence consistent with the hypothesis that it is a consequence of the relative inefficiency of the market. Finally, the prices lead earnings hypothesis formulated for more mature markets is not supported by our results”.

Masouleh, Z. K., Ansari, A., &Sadeh, M. D. (2013) revealed that “Inflation as a social problem has caused misrepresenting in financial statements of some countries. Despite the long life of inflation accounting in the world, this context has been ignored from the point of view of performing and theoretical issues in Iran. This paper investigates the value relevance of inflation adjusted income and book value of equity. Therefore, financial information of a sample was chosen and their balance sheets and income statements for 5 alternative years (2007-2011) were collected. After adjusting the data with general price index, we investigated the value relevance of these data with market value of stock. Our analysis is based on the valuation model developed by Ohlson (1995), which derives the value of a firm by using a function of the firm′s earnings and the book value per share. According to this four hypotheses were designed. Findings show that there is no significant difference in value relevance of historical or inflation adjusted data. On the other hand, both inflation-adjusted and historical cost-based earnings and book values are significantly value relevant. The two sets of data are not to be used as substitutes, but, rather, they are complementary. For this reason, inflation adjusted data should be required as supplementary data to the historical cost information rather than in place of historical cost data”.

The reviews in this regard are presented in the table-1 as under:

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Table-1: ROL

Author	Dominant Factor	Methodology	Results
Relation found in Inflation accounting and Stock Returns			
Archambault and Archambault (1999)	Rate of inflation	"Countries with higher inflation rates choose to use price-level adjustment rather than historical cost with some revaluations"	"Regardless of which inflation-adjustment index is chosen within an accounting system, the use of inflation-adjusted accounting numbers by decision makers is the main concern".
FASB (1980)	The reporting of inflation-related information	Measures the inflation-adjustment effects.	"Useful information must be capable of making a difference in a decision by helping users form predictions about outcomes of past, present and future events or to confirm or correct expectations."
Bublitz et al. (1985)	Incremental explanatory power in inflation-adjusted variables	Applying SFAS33 in the United States	"Find significant, incremental explanatory power in inflation-adjusted variables beyond that provided by historical-cost variables"
SFAS 33	"Financial Reporting and Changing Prices"	United States provided an opportunity to test the information content of inflation-adjusted accounting numbers.	When the requirement was in effect, the statement was applied "to large enterprises and required supplementary disclosure of information that measures the impact of changing prices on the enterprise".
Bildersee and Ronen (1987)	Incremental explanatory power	incremental explanatory power	"Current-cost data have incremental explanatory power on stock prices"
Sami et al. (1989)	Historical cost and inflation-adjusted earnings	predictive ability of inflation-adjusted earnings	"Predictive ability of inflation-adjusted earnings measures outperforms the historic cost earnings on changes in stock prices".
McDonald and Morris (1984)	SFAS 33 Relation with disclosures and stock returns	SFAS 33 Relation with disclosures and stock returns	"Find no significant relationship between SFAS 33 disclosures and stock returns"
Matolcsy (1984)	Inflation disclosures and stock returns	Inflation-adjusted accounting income	"Inflation-adjusted accounting income has no marginal information content".

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Author	Dominant Factor	Methodology	Results
No Relation found in Inflation accounting and Stock Returns			
Beaver et al. (1982)	United Kingdom Companies	Relation in Inflation accounting and Stock Returns	**No Relation found in Inflation accounting and Stock Returns**
Ro (1980)	United Kingdom Companies	Relation in Inflation accounting and Stock Returns	**No Relation found in Inflation accounting and Stock Returns**
Brayshaw and Miro (1985)	United Kingdom Companies	"Stock market response to the disclosure of current-cost adjustments"	"Found no evidence of a stock market response to the disclosure of current-cost adjustments as required by SSAP 16".
Barniv (1999)		"Value Relevance of inflation-adjusted and historical-cost-based earnings in Israel"	"the explanatory powers of the inflation-adjusted regressions are statistically higher than those of the historical-cost regressions".
Davis-Friday and Rivera (2000)	In sample of Mexican firms	how the link between accounting data and a firm's market worth is impacted by inflation accounting	"The accounting information as produced by both the Mexican inflation-accounting model and the U.S. GAAP model are value relevant".

Inflation-adjusted historical cost of profits and book value in India are compared in the present research to give a more comprehensive look at the literature on inflation-accounting. Our analysis of 140 publicly listed non-financial companies in our sample suggests that the two types of data provide information crucial to Indian stock market investors (BSE). Particularly, the findings of the regression show that historical cost information is more relevant to value than inflation-adjusted data. The two data sets are complementary to one another overall.

METHODOLOGY

Our research is based on the Ohlson (1995) valuation model, which calculates a firm's worth using a function of profits and book value per share. It has been frequently utilised in literature to examine how accounting information differs under various reporting standards in terms of value and relevance.

The work is divided into two parts part one is Descriptive Analyses with use of 4 inflation-adjusted ratios and part second is inferential statistics with the Predictor of MVA. The data used is for the period of 2022 and for last year comparison 2021. Further the dats of 5 companies i.e., SAIL (Steel authority of India Limited), Tata Steel, Bhushan Steel, Jsw Steel and Jindal Steel were used.

Variables in Descriptive Analyses

In order to show the impact of inflation accounting on basic financial statements, we present relevant balance sheet and income statement items in a standardized format.

NS/TA =Net sales for inflation-adjusted and historical cost based figures for 2022.

TL/TA =Total liabilities standardized by total assets for inflation-adjusted and historical cost-based figures for 2022.

IN/TA =Inventory for inflation-adjusted and historical cost-based figures for 2022.

FA/TA =Fixed assets for inflation-adjusted and historical cost-based figures for 2022.

We run the following regression model in accordance with Davis-Friday and Rivera's (2000) technique to investigate the impact of inflation-adjusted accounting on the value relevance of accounting information.

$MVE = \beta + EPS + BV + \Delta\ IEPS + \Delta IBV + \varepsilon i$

MVE represents market value of equity and is calculated as price per share at the end of fiscal year t.

EPS is the earnings per share found in the 2022 financial reports. These are historical cost based data. BV is the book value per share from 2022 financial reports which are historical cost-based data.
Δ IEPS is the change in earnings and is calculated as the difference between EPS_1 and EPS_0 period and
Δ IBV is the change in book value and is calculated as the difference between BV

Table-2: Descriptive Statistics

	Before Inflation Adjustment			After Inflation Adjustment			
Variable	Mean	Min	Max	Mean	Min	Max	t-statistics
EPS	10.64	-0.68	29.64	8.64	-1.18	27.39	0.71
BV	1.83	-73.86	69.12	6.54	-11.81	188.26	188.26**
NS/TA	1.58	0.44	14.6	1.31	0.41	3.43	3.43**
TL/TA	1.13	0.43	17.93	0.43	0.42	18.52	18.52**
IN/TA	0.58	0.41	1.01	0.57	0.41	0.94	0.94**
FA/TA	0.86	0.41	1.39	0.93	0.41	1.39	1.39**

** Significant at the 0.05 level.

In Table 2, the 2003 inflation-adjusted and historical cost-based balance sheet and income statement items are shown together with their mean values and t-statistics. The results demonstrate the effect that inflation-accounting has on India's stated financial performance. Financial ratios calculated using historical expenses and those that have been adjusted for inflation are quite different. Financial ratios that account for inflation are often lower than cost-based financial metrics from the past.

Our findings are consistent with Thies and Sturrock's (1987). They demonstrate that historical-cost ratios for a sample of 50 big manufacturing businesses are skewed, which might result in bad judgments and stock assessments. The correlation variables that were employed in the regression analysis are shown in Table 3. A correlation matrix makes it possible to gauge how strongly the variables in Table 4's variables are related linearly. The predicted positive connections between book value, earnings, and stock prices exist.

Correlations

	MV	BV	NS/TA	TL/TA	EPS	IN/TA	FA/TA
MV	-	.751**	.751**	.050**	.592**	.022**	-.380**
BV		-	1.000**	.353	.950**	.157	.019
NS/TA			-	.353	.950	.157	.019
TL/TA				-	.384**	-.145	-.021
EPS					-	.136**	.119
IN/TA						-	-.032
FA/TA							-

**: r is sig. at the 0.05 level.

Table 4: Regression Results for Value Relevance of Inflation-adjusted Data and Historical-cost Data.
Regression Results for Model
MVE = β + EPS + BV + Δ IEPS + Δ IBV + εi

Model Specifications				Coefficient Estimates of Variables			
R2	F	Sign.	N	EPS	BV	ΔIEPS	ΔIBV
0.800	235.33	0.000***	140	0.427*** (9.60)	0.656*** (12.31)	0.183*** (5.07)	–0.029(-0.76)

MVE is the market value of equity at the end of the third month after fiscal year t.
** Significant at the 0.05 level

Historical cost-based data and inflation-adjusted data show a positive and substantial relationship between stock prices (1% threshold). For historical cost-based data compared to inflation-adjusted figures, the connection between price and profits and book value is greater. The results demonstrate that, at the 5% level of significance, there is a negative and substantial association between change in profits (IEPS) and market value of stock. According to the findings, there is a strong and positive correlation between the reverse computation of change in earnings (HEPS) and equity market valuation.

CONCLUSION

The debate about inflation accounting has been ongoing for many years. In this research, we assess the value relevance of accounting information for ISE-listed Indian selected companies. Indian inflation accounting offers historical cost and inflation-adjusted financial statements only for 2003. This allows you to compare inflation-adjusted and historical-cost statistics. Both value-relevant and inflation-adjusted profits explain stock returns well. The findings suggest are complimentary, not replacements. Due to these complementarities, policymakers should demand inflation-adjusted data as a supplement to historical-cost information. The duration of accessible data limited our investigation. This research prevented time-series findings. The results given here encourages further investigations on enterprises' net monetary positions during inflation and creditors' use of basic accounting signals. This work should assist academics and practitioners comprehend real-world inflationary challenges.

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Role of ICT in Teaching and Learning Process

Ms. Pragati Mukundrao Rasekar
Assistant Professor MCA Department VMV Commerce, JMT Arts & JJP Science College,
Wardhman Nagar, Nagpur ,Email-id: pragatirasekar8@gmail.com

- **Abstract**:

The integration of Information and Communication Technology (ICT) into the teaching and learning process has the potential to greatly enhance the educational experience for both teachers and students. ICT tools such as computers, smartphones, and the internet provide new and innovative ways to access information, collaborate and communicate, and support personalized and differentiated learning. However, the effective integration of ICT also requires careful consideration of the potential challenges, such as equity and access, teacher training and support, technical and operational issues, and balancing technology with traditional teaching methods. This paper highlights the benefits and challenges of ICT in teaching and learning process, and the importance of responsible and effective integration in support of improved teaching and learning outcomes and also emphasisthe ICT tools for teaching and learning which could make the teaching experience fun for both the students and teachers.

Keywords: ICT tools, digital resources, wealth of information and resources,SWAYAM

- **Introduction:**

Information and Communication Technology (ICT) plays a important role in educational system. ICT has changed the format of education system as well as its functionality in a good way.It offers much more benefits in teaching and learning environment, hence it increases the productivity of education.

ICT gives benefits to both teacher and students, because ICT provides many opportunities to students in academic achievementand the use of ICT can provide students with access to a wealth of information and resources, facilitate collaboration and communication between students and teachers, and support personalized and differentiated learning and also makes teachers aware of their new roles &responsibilities due to digitalization.Teacher can improve their teaching through using ICT, because it is very helpful for collecting real world updated data.

It wasbig challenging in rural or undeveloped area due to lack of media which is required for ICT, but it has become easier due to government intervention. Increasing role of ICT will make education more democratic means it will providethe quality education services available to even students who are sitting in the farthest corners of the country.

- **Objectives :**

The main objective of information and communication technology (ICT) in teaching and learning process is to enhance and improve the educational experience by facilitating access to information, improving communication and collaboration among students and teachers, and promoting student engagement and motivation. ICT also aims to provide teachers with new and innovative tools for lesson planning, delivery, and assessment, as well as provide students with opportunities for individualized and self-directed learning.

ICT also aims to improve quality of education for that ICT helps the teachers to gain advance knowledge, also helps to collect, to maintain & save data.

ICT objective is to provide quality education services to even students who are sitting in the farthest corners of the country and to expand the access to all level of education for all the learners.

- **ICT Tools:**

In the pandemic era, the use of ICT tools for teaching and learning has become even more widespread because in pandemic situation the physical classes in the schools, colleges have been replaced by online live/recorded sessions at homeand smartphones have taken the place of books and physical classes.

Here are some of the most popular ICT tools used for teaching and learning in the current scenario:-

Learning Management Systems (LMS): These are platforms for delivering online courses, managing educational content, and tracking student progress.
Example: Canvas, Moodle, Blackboard, SWAYAM, Google Classroom
Virtual Classroom Software: These are platforms for real-time online collaboration and instruction, allowing teachers and students to interact in real-time.
Example: Zoom, Microsoft Teams, Cisco Webex, Google Meet
Educational Games and Simulations: These are interactive educational tools for learning through play, providing a fun and engaging way for students to learn.
Example: Kahoot, Quizlet, Classcraft
Educational Apps: These are mobile applications for learning on the go, providing students with convenient access to educational resources.
Example: Duolingo, Khan Academy, Coursera
Interactive Whiteboards: These are digital boards for interactive presentations and teaching, allowing teachers to create and deliver dynamic lessons.
Example: Promethean, SMART Board, polyvision
Online Assessment Tools: These platforms are used for creating and administering online tests and quizzes, making it easier for teachers to assess student understanding.
Example: Google Forms, Quizizz, Socrative
Digital Textbooks: These are electronic versions of traditional textbooks with interactive features, providing students with a more engaging and interactive learning experience. Example: VitalSource, Apple iBooks, Amazon Kindle
The specific tools used will depend on the needs and requirements of the teacher and the students.

- **The Governmentof India initiative in Teaching and Learning Process through ICT:**

The Government of India has taken several initiatives to promote the integration of Information and Communication Technology (ICT) in education in the country. Government has also launched several schemes to provide computers and other ICT equipment to schools, and to train teachers in the use of technology in the classroom. These initiatives aim to ensure that students have access to technology and digital resources to support their learning, and teachers have the skills and knowledge to effectively integrate ICT into their teaching. Here are a few ways in which the government has been involved in the integration of ICT in teaching and learning process:-

Digital India Program: Launched in 2015, the Digital India program aims to transform India into a digitally empowered society and knowledge economy. One of its key components is the promotion of the use of ICT in education.
National Policy on Education (NPE) 2020: The latest National Policy on Education (NPE) 2020, which aims to repair the education system in India, has placed significant emphasis on the use of ICT in education. It recognizes the potential of ICT to improve access, equity, and quality of education, especially in remote and rural areas.
National Mission on Education through ICT (NME-ICT): The government launched the National Mission on Education through ICT (NME-ICT) in 2007 with the aim of using ICT to enhance the quality of education and make it accessible to all. The mission provides support to schools, colleges, and universities to set up ICT infrastructure, provide training to teachers and students, and develop e-content.
SWAYAM:The government has launched the SWAYAM platform, which is a massive open online course (MOOC) platform that offers free online courses to students. The platform covers a wide range of subjects, training resources includingonline courses, e-Books, and other learning materials and provides students with access to quality education regardless of their location.It provided all courses from Class 9 till post-graduation online to everyone free of cost.
Ninenational coordinators that help in ensuring the quality of the content are:

AICTEfor self-paced and international courses, NPTELfor Engineering, UGCfor nontechnical post-graduation education,CECfor under-graduate education, NCERTfor school education, NIOSfor school education, IGNOUfor out-of-school students, IIMB for management studies, NITTTR for Teacher Training Programme.

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e-Vidyainitiative: In 2020, the government launched the e-Vidya initiative to ensure that students continue their education even during the COVID-19 pandemic. The initiative includes the use of various ICT tools and platforms to facilitate remote learning.

National Repository of Open Educational Resources (NROER): The government has set up the National Repository of Open Educational Resources (NROER) to provide free and open access to educational resources to all students in India. The repository includes a wide range of resources, including multimedia content, simulations, and assessments, which can be used by students and teachers to enhance their learning experience.

Samagra Shiksha: Launched in 2018, Samagra Shiksha is a comprehensive and integrated scheme for school education in India, which includes provisions for the integration of ICT in education.

Some of other initiatives of government which helps the schools and colleges to improve their education system which are: **e-Pathshala,Share for India, Shaala Siddhi, Shaala Darpan, Saransh Portal, School GIS**.

Overall, the Government of India has been making significant efforts to promote the use of ICT in education and to ensure that all students have access to quality education.

- **Benefits:**

The role of Information and Communication Technology (ICT) in teaching and learning has been widely researched and debated over the years. Some of the key benefits of incorporating ICT into the classroom are:-

Increased engagement and motivation: ICT tools like multimedia, simulations, and gamification can make learning more interactive and engaging, leading to higher levels of motivation and attention from students.

Improved access to information and resources: ICT tools such as online databases, educational software, and multimedia resources can provide students with access to a wealth of information and resources, helping them to become more independent learners.

Personalized and differentiated learning: ICT tools can be used to create customized learning experiences, allowing students to work at their own pace and learning style.

Enhanced collaboration and communication: ICT tools such as online forums, instant messaging, and videoconferencing can facilitate collaboration and communication between students and teachers, allowing for more effective sharing of ideas and knowledge.

Distance is no longer an issue: Distance is no longer an issue when it comes to accessing information for example, working from home, distance learning, e-banking, and e-government are now possible from any place with an Internet connection and a computing device.

- **Challenges:**

Some of the key challenges of incorporating ICT into the classroom are:-

Equity and access: Not all students have access to the technology and internet needed to fully participate in ICT-enhanced learning, leading to disparities in educational opportunities and outcomes.

Teacher training and support: Teachers may need additional training and support to effectively integrate ICT into their teaching practices.

Technical and operational issues: ICT tools can be complex and time-consuming to set up and manage, and may require ongoing technical support.

Balancing technology and traditional teaching methods: There is a need to strike a balance between the use of ICT and traditional teaching methods to ensure that students receive a well-rounded education.

- **Analysis:**

The integration of ICT into education has the potential to revolutionize the way teachers teach and students learn. ICT tools, such as computers, the Internet, and mobile devices, provide new and innovative opportunities for students to access information, communicate with others, and engage in collaborative learning experiences.

In the classroom, ICT can be used to create engaging and interactive multimedia presentations, provide access to a vast array of digital resources, and facilitate student-led and self-directed learning. ICT also provides teachers with new tools for assessment, such as online quizzes and assessments that provide instant feedback to students.

Outside of the classroom, ICT can be used to support communication and collaboration among students and teachers. For example, learning management systems (LMS) can be used to create online learning environments where students can access course materials, participate in discussion forums, and collaborate on group projects.

However, it is important to note that the effective integration of ICT in education requires a holistic approach that involves not only the use of technology, but also the development of pedagogical practices that support student-centered and interactive learning.

➢ **Conclusion:**

Finally, the role of ICT in teaching and learning process is to provide new and innovative opportunities for students to access information, communicate with others, and engage in collaborative learning experiences, as well as providing teachers with new tools for assessment and instructional delivery.

In conclusion, ICT has the potential to greatly enhance the teaching and learning process, but its effective implementation requires careful consideration of the benefits and challenges, as well as a commitment to ongoing teacher training and support.

"Technology will never replace great teachers, but in the hands of great teachers, it's transformational." – George Couros, the Author of 'The innovators mindset'.

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India's Higher Education System: Opportunities and Challenges

Pranay R. Bhutada
(Research Scholar, VMV College of Commerce, JMT Arts, JJP Science, Wardhman Nagar, Nagpur 440008)(pranaybhutada@gmail.com),(8446490910)

Abstract:

According to international standards, India's higher education system lags behind in several areas. The world has come to understand that a country's educational system directly affects its ability to prosper economically. The strength of a country is its education. Education is a prerequisite for any modern country. In the globe, India has the third-largest higher education system after China and the United States. India has been making tremendous strides in the realm of education since gaining its freedom. Academic institutions must overcome a number of obstacles in order to continue doing their work and providing high-quality education. However, Indians have a reputation for making a name for them in the academic world and have contributed to many notable fields of study. The necessity for more accountability and openness, as well as the need of fresh scientific studies on how individuals learn, is critical. In order to advance economically, India needs highly educated and talented workers. India is a major supplier of highly trained labour to other nations, making the transition from a developing to a developed country quite simple for India. The current study intends to draw attention to the difficulties and possibilities facing India's higher education system. The National Education Policy 2020 has shown an impact in making things better and transparent towards digital learning.

Keywords: - Education, Indians, National Education Policy & Digital Learning.

Introduction:

After China and the United States in terms of student enrollment, India has the third-largest higher education system worldwide. India will soon rank among the biggest centers for education. Since India's independence, the number of Universities, University-level Institutions, and Colleges has significantly increased. With figures showing a stunning increase in enrollment in schools over the previous four years, the "Right to Education Act," which mandates compulsory and free education for all children between the ages of 6 and 14, has revolutionized the nation's educational system. Since 2001, the number of people pursuing and enrolling in higher education has virtually quadrupled. Higher education has undergone significant modifications as a result of private sector engagement. In India now, the private sector promotes more than 60% of higher education institutions. India has historically played a leading sending country role in the global education scene, but its stature as a destination for international students is growing. To that end, India must priorities its higher education system in order to achieve its overlapping objectives of increasing access to higher education for all students within the nation, retaining brilliant Indian students at Indian institutions, and luring students from overseas.

Literature Review:

(Mitra, 2008): India has 1522 engineering institutions that award degrees and enroll 582,000 students annually (Science and Technology Education, 2009), in addition to 1,244 polytechnics that enroll 265,000 students annually. However, there is a teacher shortage at these schools, and questions about the educational program's quality have been raised.

(Masani, 2008): Knowledge these days is power. One is more powerful the more information they possess. India, however, still has significant obstacles to overcome. Despite increased investment in education, 25% of the population still lacks literacy skills, and just 15% of Indian students complete their high school education.

(McNulty, 2017): It was seen that Indians with American citizenship give more emphasis to academics and education. The study is an exploratory study conducted to determine the opinion of Indian researchers and academicians regarding higher education

(All India Survey on Higher Education, 2018): Since 2001, enrolment and pursuit of higher education have nearly quadrupled.

(Shamika, Gupta, & Nagraaj, 2019): In the Indian subcontinent, higher education is a very serious industry. India's potential for higher education has rapidly increased during the past twenty years.

(Ahmad, 2019): The quality of education offered by many universities is reportedly fairly subpar, according to TSR Subramanian's National Education Policy Draft Report. The challenge is that persons with strong academic records would not choose to work on a contractual basis, which accounts for 40% of college instructors.

(Jha & Rao, 2019): To help them advance in their careers, faculty may continue to feel pressured to do research and publish publications. It's possible that there won't be much money available for research. The top universities and research institutions in India, including the Indian Institute of Technology, the Indian Institute of Science, and several of the Central Universities, get the majority of the government's funding for higher education research.

(Tobenkin, 2022): The number of institutions has expanded by more than 400 percent since 2001. Capacity is growing rapidly to serve India's large youth population and burgeoning college-aged cohort.

Growth of Higher Education Sector in India:

The quality of programmes, public evaluations, and global rankings of higher education institutions are issues that society is becoming more and more concerned with as higher education systems expand and diversify. However, these comparisons frequently overemphasize research, interpreting it as a gauge of institutional worth. It is partly because evaluating teaching quality is difficult that these approaches do not address the quality of instruction.

The epidemic has intensified India's pre-existing problems in the previous two years, including issues with capacity, equality, resource availability, quality, and administrative roadblocks. But as India's tertiary sector goes through a time of unprecedented development, reform initiatives to deal with these problems and others are starting to take hold. The (National Education Policy, 2020) (NEP 2020), which was adopted by India's federal government in July 2020, offers some promise for significant improvement. However, it's too soon to say if the NEP's implementation will be successful in advancing the industry. The state of higher education in India is a combination of advancement and difficulties. Its scope is enormous; the most recent All India Survey of Higher Education Report (2019–20) lists 11,779 standalone institutions, 1,043 universities, and 42,343 colleges as making it one of the world's largest higher education sectors (**AISHE 2019–20**). To accommodate India's sizable young population and expanding college-age cohort, capacity is expanding quickly. The gross enrolment ratio (GER), which calculates the overall enrollment in education as a proportion of the population of school-age children that are eligible, is one important indicator. The Ministry of Education's goal of obtaining 32 percent by 2022 appears to be missed given India's GER of 27.1 percent in 2019–20. According to Philip Altbach, a research professor at Boston College and the founding director of the Center for International Higher Education, it is also far behind China's 51 percent and much of Europe and North America, where 80 percent or more of young people enroll in higher education.

Challenges in Higher Education in India:

Even though we have been independent for 75 years, our educational system is still in its infancy. We are unable to include a single institution on our ranking of the top 100 universities in the world. Throughout these seven decades, several administrations came and went.

They made efforts to improve the educational system and put in place a number of educational regulations, but they fell short of setting an example for the entire universe. In the field of higher education, UGC is always working and putting excellent education first. Still, there are many issues and difficulties in our educational system. The following is a discussion of some of the fundamental issues facing India's higher education system:

1. Enrolment: In comparison to developed and developing nations alike, India's higher education gross enrollment ratio (GER) is relatively low at just 26.3%. The country's expanding demand for higher education is not being met by the number of higher education institutions available due to rising school enrollment. It is probably difficult to achieve the NEP 2020-envisioned GER of 50% at the higher education level in 2035.

2. Equity: Between many societal factions, GER is inequitable. In higher education in India, the GER between males and females differs more than in other countries, according to earlier studies. Regional variances exist as well, with some states having high GERs while others lag well behind the national GER, which highlights serious inequities in the higher education system.

3. Quality: Higher education quality is a dynamic, multifaceted, and multilayered term. One of the biggest issues facing India today is ensuring the quality of higher education. But the government never stops emphasizing good education. Our institutions are not in a position to claim their place among the best universities in the world since a significant portion of colleges and universities in India are still unable to achieve the basic standards set by the UGC.

4. Infrastructure: Another issue facing India's higher education system is the country's inadequate physical infrastructure, which is especially problematic for institutions operated by the public sector. There are several universities operating on the second and third floors of the structure, and ready-made clothing stores and copying shops are located on the ground or first floors.

5. Political interference: The majority of educational institutions are controlled by political figures that hold important positions in the universities' governing bodies. They are using the helpless students for their own personal gain. Campaigns are organized by students, who eventually lose sight of their own goals and start to pursue political careers.

6. Faculty: For many years, there have been issues with the quality of education due to a lack of faculty and the state's failure to recruit and retain instructors with the necessary qualifications. The largest blow to the higher education system is the fact that many NET and PhD candidates remain unemployed despite the fact that there are many open positions in the field. These eligible students then apply to positions in other areas.

7. Accreditation: Only 12 to 13% of Indian colleges and universities get NAAC certification. The primary goals of the Indian educational system are social control, more autonomy, and the introduction of cutting-edge technological fields that have facilitated greater access to higher education.

8. Research and Innovation: There are relatively few intellectuals in our nation whose works are referenced by well-known western authors. In higher education institutions, the emphasis on research is insufficient. There aren't enough tools and facilities, and there aren't enough top-notch professors to help pupils. The majority of research researchers lack fellowships or do not receive them in a timely manner, which negatively impacts their research in one way or another. Institutions of higher learning in India also have insufficient access to research facilities. Consequently, this presents another difficulty for India's higher education system. Barely 2.64% of GDP is spent on Research and development in the country.

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9. Structure of Higher Education: Over centralization, bureaucratic institutions, and a lack of professionalism, accountability, and openness provide difficulties for Indian education management. The weight of administrative tasks at universities has greatly grown as a result of the growth in the number of connected institutions and students, diluting the primary emphasis on education and research.

Opportunities in Higher Education:

India is a sizable nation, with over 250 million young people between the ages of 18 and 23 living there. The sheer magnitude of the market presents enormous prospects for the growth of India's higher education industry. India's higher education landscape is a mix of progress and challenges. Its scope is vast: 1,043 universities, 42,343 colleges, and 11,779 stand-alone institutions make it one of the largest higher education sectors in the world, according to the latest (2019–20).

Unfortunately, the educational infrastructure of India is inadequate to handle such huge volumes. The number of institutions has expanded by more than 400 percent since 2001, with much of the growth taking place in the private education sector, according to a major 2019 report from the Brookings Institution, Reviving Higher Education in India. India has produced many noteworthy higher education institutions, including those specializing in sciences and business, though none of them take the top spots in global rankings. Its highest-ranked institution, the Indian Institute of Science, was in the 301–350 range among institutions worldwide in 2022, according to the Times Higher Education 2022 World University Rankings. China, by contrast, has 16 institutions in the top 350, including six ranked in the top 100 and two in the top 20. However, much is different about India—its central government is less efficient and empowered, there's enormous variation between India's 36 states and territories, there's less affluence, and the country has a democratic political system.

Despite the fact that the government spends a lot of money on education, it is just not enough to keep up with demand. The higher education industry has therefore been recognized as one of the attractive fields for both domestic and international investment. In both legal and unregulated markets, it provides a wealth of investment options. At the state level, there are possibilities for strategic involvement and capacity building in leadership and administration of higher education. Opportunities exist for India to collaborate on systemic transformation at the national and international levels in areas like quality assurance, global credit recognition, and unified national credentials framework. Because higher education is a potent weapon for lowering or eliminating income and wealth gaps, it is seen to be crucial to ensure that all students have equal access to educational opportunities. The concept of equating educational prospects is further supported by the observation that "all socioeconomic classes have an equal opportunity to gain from higher education." There are a lot of untapped talent reserves in society, and if given the chance, they can succeed. In reality, an unequal educational system results in the loss of a considerable number of high-level talents.

Suggestions:-

- From basic to higher education levels, creative and transformative approaches must be used to make the Indian educational system more competitive and relevant worldwide.
- Institutions of higher learning must enhance their reputation and quality.
- The government must encourage cooperation between top international and Indian higher education institutions, as well as connectivity between national research laboratories and research centers at prestigious schools, in order to foster more productive and collaborative research.
- By giving graduate students the kind of courses where they may thrive and learn more about a subject, we can lessen the needless rush to higher education and increase the number of jobs available to graduates once they are hired.
- Favoritism and other means of generating money should not be used in the educational system.

- Restructuring and consolidating the system so that institutions have a minimum 3,000-student enrollment.
- Public and private colleges and universities must be free of any political links.
- For colleges and universities to draw students, they need have a robust infrastructure.
- Imposing a differentiated system of research universities, teaching universities, and colleges that seeks to do away with the affiliation model, merge institutions to create larger multidisciplinary education and research institutions, and give greater autonomy to the best universities.

Actions till 2022:-

- A 10-year increase in the percentage of total government spending allocated to public education from 10% to 20%.
- Continuing the Leadership for Academicians Programme, which was established in 2019 and, in collaboration with particular international universities, offers training for people in academic and administrative leadership roles.
- The IITs and the Indian Institute of Science are the project's administrators. It is called the National Program on Technology Enhanced Learning (NPTEL). More than 2,300 online courses have been made available to students, and those who took part might obtain credentials from those organizations that included transferable credits.

Conclusion:-

A person's body, intellect, and character are shaped and reinforced via education. It unites the intellect, heart, and body, allowing someone to create a well-rounded personality and bring out the best in them. In the six decades since independence, higher education in India has grown extremely quickly, yet not everyone can access it. India is now one of the world's nations that is developing the quickest. A sizable portion of the population is still illiterate, and many children do not receive even the most basic schooling. This has hindered a sizable portion of the population from fully contributing to the country's progress and from taking advantage of whatever advancements have been made for the good of the populace. India undoubtedly has a number of difficulties when it comes to higher education, but it is crucial to overcome these difficulties and advance higher education. Higher education in India must improve in terms of both quantity and quality if it is to continue growing at that rate. It is urgently need to take another look at financial resources, access and equity, quality standards, relevance, infrastructure, and responsiveness in order to meet and exceed future expectations.

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The Challenges, Role, and Impact of ICT in Improving Education Quality

Dr. Pratap Mansukhlal Chauhan
Associate Professor M.Com.; M.A. (Eco.), M.Phil; B.P.ED. B.Ed., NET (Commerce), Ph.D.
Vmv Commerce, Jmt Arts & Jjp Science College,Wardhmana Nagar, Nagpur
pratapchauhan2008@gmail.com

Abstract:

ICT (information and communication technology) has a universally acknowledged importance in education. ICT has the potential to be a very effective instrument for expanding educational possibilities. ICT have the ability to improve education's relevance and quality while also facilitating more access to it. The importance of ICT in the teaching and learning process has grown as a result of how well technology aids these processes, fosters a positive learning environment, and supports students' growth in self-assurance and creative thinking. ICT has created fresh obstacles for high-quality education. It has affected many facets of people's life. This essay's goal is to highlight the advantages of using information and communication technologies (ICTs) in education, how they may improve teaching and learning, and why successfully integrating ICTs into these processes is essential to their development. It draws attention to the effects and advantages of ICT in education. NPTEL, SWAYAM, EDUSAT and many more has started the era of digital learning.

Keywords: ICT, impact of ICT, roles of ICT, teaching and learning process.

INTRODUCTION:

Information and communication technologies, often known as ICTs, are described in this primer as an "Information is created, distributed, stored, and managed using a wide range of technical tools and resources. Information and communication technologies are described by the United Nations Development Programme (UNDP) as follows: ICTs are basically information-handling tools-a varied set of goods, application and services that are used to produce, store, process, distribute and exchange information."

In order to increase student motivation, improve fundamental skills, and increase teacher technology training, quality education depends on the growth of information technology in a number of ways. When implemented effectively, information and communication technology may be used to revolutionize a curriculum or a subject and foster a learner-centered environment. Teachers train students to understand and utilize the new pedagogy by using information and communication technology. The use of information and communication technologies (ICTs) in the classroom is becoming a must. Many areas of the lives have changed as a result. These developments have caused educational institutions, administrators, and instructors to reevaluate their positions, methods of instruction, and long-term goals. New problems for students' access to high-quality education have emerged because to ICT. Digital platforms Like SWAYAM, NPTEL, EDUSAT with integrated courses are being assigned by government of India to support the digital initiative in ICT.

Literature Review:

(Kozma, 1991) argued that particular forms of media have particular affordances and learning benefits which should influence the choice and use of pedagogy.

(J., 2013) findings revels that in US students who used computer in learning developed diversified range of skills and performed better.

(Brosnan, 2001) found that attitude, motivation, computer anxiety and computer self-efficacy are factors affecting teachers use of computer in their lesson

(Garrison, 2004) found that there is no evidence for a relationship between increased educational use of ICT and students performance. In fact they found consistently negative and marginally significant relationship between ICT use and some student achievement measures. (Robert & Lenzs, 2008) from his study tried to assess that e learning technologies have become sufficiently stable to now allow the focus to shift to instructional quality and content rather than the technology itself.

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(Desai, 2010) argues the role of ICT in transforming teacher centered learning to competency based learning and found that role of ICT in the education is recurring and unavoidable.

(Barak, 2018) from his study found that how teacher integrate web-based technologies and their perceptions of cloud pedagogy. He found that cloud pedagogy framework facilitates individual and collaborative, synchronous and asynchronous active learning

(Sayed Zafar, Waleed, Chaubey, & Rehman, 2019) signifies that academic leadership has become larger and more central for the development of qualities of higher education in the country, university need to consciously and explicitly managing the process associated with the creation of academic leadership with their knowledge assets and to recognize the value of their intellectual capital to their continuing role in the society and in a wider global marketplace for higher education.

OBJECTIVES OF ICT IN EDUCATION:

1. An improvement in learning progress and results.
2. A rise in knowledge and skill acquisition by people, which is essential for sustainable growth and improved living.
3. To enable and encourage the interaction between people and the environment.
4. To put the long-term education philosophy into practice.
5. To improve the diversity of educational services and approaches, as well as the literacy rate, through distant learning.
6. To emphasize the relevance of both slow learners and bright students in promoting technological literacy among citizens.
7. Connecting the digital gap between the students through medium of E-Learning.

GROWING USE OF NEW METHODS OF MODERN EDUCATIONAL TECHNOLOGIES:

Technology is an effective instrument that is revolutionizing every part of existence. Compared to other forms of survival, it has come into schooling rather late. It supports all educational participants and fosters close bonds between teachers and students. It is assisting society and those involved in education to rethink their strategies, it is assisting us in learning and collaborating, it is assisting us in reducing the long-standing gap and fostering equity, and it is assisting us in adopting learning experiences that cater to the needs of all learners. Collaboration and learning sharing among educators are aided by it. Along with their pupils, it is assisting teachers in their quest for fresh information and skill advancement.

1. Electronic Learning (E-LEARNING)
2. Blended Learning
3. Active Learning
4. Collaborative Learning:
5. Creative and Innovative Learning
6. Learning through Podcast
7. Open and Distance Learning
8. Web Seminar Learning
9. Mobile Learning
10. Evaluative Learning.

ICT CHALLENGES:

1. How may technology developments affect society, the demands of the labour market, higher education systems, and institutions?
2. What options do nations and institutions have for addressing these changes?
3. What changes are there in the market's need for skills?
4. What changes in learning requirements should higher education institutions make in response?
5. What effects will new technology and internet resources have on how individuals learn?
6. Are national systems for awarding credentials and recognizing learning outcomes ready to take into account the consequences of open education?

ICT'S IMPACT ON EDUCATION AND ITS ROLE:

Using ICT to learn and its effects in the past, material has been prioritized in instruction. For a long time, textbooks have shaped how courses are written. To reinforce and practice the material, tutoring and learning exercises have been interwoven with lectures and presentations by teachers. ICT and its results complement other technology in making our lives more pleasant and useful. ICT is now advancing quite quickly. Therefore, the entire educational system has to be reformatted, and it needs to be included into educational activities, in order to balance it. The arrival of ICT has changed the conventional paradigm of learning, which was challenging in the past. It has the potential to change how education is provided. The potential for ICT to advance a cause and benefit everyone involved in the process and result is enormous. ICT's role or effects in education:

1. ICT has the potential to enhance the country's educational system.
2. Give students the chance to demonstrate their learning in ways that a standard teaching approach would not provide.
3. ICT might support students' creation, inventory, and curiosities.
4. By enabling novel kinds of engagement between students, teachers, educational staff, and the community, ICT contributes to improving the quality of education.
5. ICT serve as new instruments that instructors and students may use to better learning and teaching and further the development of abilities.
6. ICT enhances the syllabi's structure and quality by requiring a competency and performance-based approach.
7. Access to the learning programme at any moment that is convenient for the student, who can access on from anywhere.
8. To broaden the selection of educational services and media.
9. By offering more interactive instructional resources, it enhances the learning process and makes it easier for students to pick up fundamental skills quickly.
10. By facilitating distant learning, ICT increases access to education for all people, bringing it to the doorstep of children who live in isolated rural areas.

The governments of India have acknowledged the use of ICT in teacher training. The National Program of Technology Enhanced Learning (NPTEL), the Multimedia Educational Resource for Learning and Online Teaching (MERLOT), and other initiatives work to create high-quality digital content for use at various educational levels. These initiatives aim to increase the availability of high-quality educational materials in India.

1. The creation of a range of educational services and media
2. To encourage access to education and knowledge for all people.
3. To create a mechanism for gathering and sharing knowledge on education.
4. To encourage technological awareness and aid online learning
5. To encourage the dissemination of knowledge and experience.
6. Aids in developing creative teaching techniques and improves the effectiveness of classroom instruction.
7. Functions as an aid for learning and teaching.
8. ICT aids instructors in inspiring pupils and fostering a love of learning.
9. ICT serves as the repository for educational institutions since it allows for the secure storage of all educational data.
10. ICT enables teachers to effectively communicate with their pupils. ICT thereby fills the gap between teachers and a significant part in determining how well children are doing.

KEY ICT PROJECTS IN INDIA:

1. **UGC-INFONET**: In the latter half of 2004, UGC launched UGC-INFONET (University Grant Commission). Every piece of academic writing and information on the internet is accessible electronically through UGCINFONET. The initiative was carried out by the Director of the Information and Library Network (INFLIBNET) Center in Ahmedabad, and it is comprised of universities that are associated with the UGC.
2. **EDUSAT:** The ISRO (Indian Space Research Organization) and the Ministry of Human Resource Development launched EDUSAT together (MHRD). This initiative intends to improve the nation's capacity for remote learning and multicast interactive multimedia for the educational sector.

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3. **E-SIKSHAK:** The Ministry of Communications and Information Technology of the Government of India's Centre for Development of Advanced Computing (CDAC), a Scientific Society, has introduced the e-SIKSHAK e-learning framework. Free Telugu classes are available on this website.
4. **SAKSHAT:** Under the MHRD, the educational site SAKSHAT offers connections to online resources. It meets all of the educational demands of educators, learners, researchers, and students. UGC, AICTE, IGNOU, NCERT, KVS, NVS, CBSE, IISc, and IITs created the material.
5. **e- YANTRA:** As part of the National Mission on Education via ICT programme, IIT Bombay has launched the e-Yantra project. Its goal is to develop the next generation of embedded systems engineers with a practical mindset who can contribute to offering practical answers to some of the real-world challenges.
6. **e- KALPA:** The National Mission in Education via Information and Communication Technology includes funding for this initiative from the Ministry of Human Resources of the Government of India. This project is being started with the goal of "Creating Digital-learning Environment for Design," and by doing so, learning environments will be created that will provide access to the acquisition of necessary information, abilities, and skills in the field of design.
7. **VIRTUAL LEARNING ENVIRONMENT (VLE):** The VLE is an online e-resources platform that meets the demands of many courses offered at the undergraduate and graduate levels. It is a 2012 project from the University of Delhi's Institute of Life-Long Learning.

CONCLUSION: National frontiers are now just empty lines on maps thanks to the revolution in information and communication technology. According to this scenario, one of the services that must be made available for international trade is education. Utilizing ICTs in modern schooling can help the government save a lot of money. Additionally, there has been a significant amount of qualitative development, and the top trainers in the world may serve as resources. ICT may improve education quality and standards by being used at all stages of the educational process. However, a challenge to using ICT in 21st-century development is a shortage of resources in the educational sector. There are several difficulties in employing and integrating ICT in contemporary schooling. The difficulties, such as the availability of ICT resources in educational institutions, the inability to use ICT tools, language barriers, a lack of resources and training, etc. But we can overcome the obstacles by raising awareness about ICT education, developing policies that support widespread access to knowledge and abilities for learning and utilizing. ICT, increasing community involvement for self-sustainability in ICT application, and creating supportive infrastructure facilities like electricity and internet. Government should take initiative. In order for contemporary education to succeed and for instructors and institutions to be more cutting-edge and dynamic, responsible authorities must work to overcome these obstacles. Students' learning experiences will eventually be improved by the usage of ICT. In a technologically advanced society, it is also beneficial for developing a successful profession.

SUGGESTIONS:

1. The strategy plans for schools and, more importantly, each year's lesson plans should include a discussion of ICT as a tool that may support ongoing educational innovation in the centers.
2. Academic institutions should have modern computer labs and other suitable facilities.
3. The teaching staff must be taught in the usage of these abilities since they play a crucial part in deciding what to teach and how to teach it (as well as what the students will learn) using ICT.
4. Making the e-learning subjects to be opted for compulsion in the master's degree completion.

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Religious Practices in sustainable development

Pritee Hirdesh Shrivastava
Smt. KDM Girls College Hiwari Layout, Nagpur ,pritee2947@gmail.com

Introduction

The term "Sustainable Development" is defined as the development that meets the needs of the present generation without excessive use or abuse of natural resources so that they can be preserved for the next generation. There are three aims of sustainable development; first, the "Economic" which will help to attain balanced growth, second, the "Environment", to preserve the ecosystem, and third, "Society" which will guarantee equal access to resources to all human beings. The key principle of sustainable development is the integration of environmental, social, and economic concerns into all aspects of decision-making.

The Sustainable Development is all about a wholesome development in all areas to improve the life standards, preserve nature and to live with peace and harmony. Sustainable development pertains to the plans, set of actions, jointly agreed upon, to conserve and improve the quality of human life and the environment without compromising future generations' ability to meet their own needs. It therefore refers to the need for a shift in development paradigms from an unsustainable linear model, where resources are extracted, used and then discarded, to a more sustainable circular model that conserves and renews resources

Need for Sustainable Development?

There are several challenges that need attention in the arena of economic development and environmental depletion. Hence the idea of sustainable development is essential to address these issues. The need for sustainable development arises to curb or prevent environmental degradation. It will check the overexploitation and wastage of natural resources. It will help in finding alternative sources to regenerate renewable energy resources. It ensures a safer human life and a safer future for the next generation.

The COVID-19 pandemic has underscored the need to keep sustainable development at the very core of any development strategy. The pandemic has challenged the health infrastructure, adversely impacted livelihoods and exacerbated the inequality in the food and nutritional availability in the country. The immediate impact of the COVID-19 pandemic enabled the country to focus on sustainable development. In these difficult times, several reform measures have been taken by the Government. The State Governments also responded with several measures to support those affected by the pandemic through various initiatives and reliefs to fight against this pandemic.

The development of a nation that manages its natural resources sustainably to meet the usage of the present generation at the same time preserve for future generation is called sustainable development. Sustainable development aims at using and preserving natural resources without damaging the environment.

For sustainable development to be achieved, it is crucial to harmonize three core elements: **economic growth, social inclusion and environmental protection**. These elements are interconnected and all are crucial for the well-being of individuals and societies.

Concept of Sustainable Development

Sustainable development rests on three pillars – economic, social and environmental – which are often referred to as the triple bottom line. Achieving sustainable development requires balancing these three pillars in a way that meets the needs of present generations without risking the future generation.

The concept of sustainable development has been around for decades, but it gained prominence in 1987 with the publication of Our Common Future, also known as the Brundtland Report. The report, prepared by the World Commission on Environment and Development (WCED), defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Since then, sustainable development has become the rallying cry of environmentalists, social justice advocates and others concerned about the future of our planet. In 2015, all 193 member states of the United Nations adopted the 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs). The SDGs are a blueprint for achieving sustainable development in all its dimensions – economic, social and environmental – by 2030. espite the growing global consensus on the need for sustainable development, implementation has been slow and uneven. A number of barriers to implementation have been identified, including lack of political will, inadequate financing, lack of knowledge and awareness, and conflicting priorities among different stakeholders.

There is no one-size-fits-all solution to achieving sustainable development. Each country must tailor its approach to sustainable development to its own specific circumstances and needs. However, a number of general principles have emerged that can guide countries in their efforts to achieve sustainable development.

Sustainable Development for India:

India is a rapidly developing country with a population of over 1.3 billion. The country faces many challenges in achieving sustainable development, including poverty, illiteracy, malnutrition, environmental degradation and climate change.

In recent years, India has made progress in some areas of sustainable development, such as reducing poverty and increasing access to education and health care. However, much more needs to be done to meet the country's development goals.

There is a need for greater political will and financial resources to implement sustainable development initiatives in India. In addition, there is a need to raise awareness of sustainable development among the general public and create more coherent and coordinated policies at the national level.

Religious beliefs:

Barro and McCleary suggest that higher rates of religious beliefs stimulate growth because they **help to sustain aspects of individual behavior that enhance productivity**. They believe that higher church attendance depresses growth because it signifies a greater use of resources by the religion sector.

What are some of the positive effects of religion on development?

It **improves health, learning, economic well-being, self-control, self-esteem, and empathy**. It reduces the incidence of social pathologies, such as out-of-wedlock births, crime, delinquency, drug and alcohol addiction, health problems, anxieties, and prejudices

All Countries should meet their basic needs of employment, food, energy, water, and sanitation. Everybody is rightful to a healthy, safe, and clean environment. This can be easily achieved by reducing pollution, poverty, and unemployment**.** Religious beliefs about creation shape attitudes and behavior about sustainability, the natural world, and the sanctity of the body. Moral judgment strongly shapes attitudes and behavior on issues related to future generations, health, and environmental protection; it is therefore key to the cultural transmission of attitudes toward sustainability. In a pluralistic society, a collective or public philosophy that supports sustainability and promotes good health has to be secular to function as public knowledge but also respectful of religious beliefs and private knowledge. "Deep ecology" is a secular philosophy compatible with religious beliefs that concerns itself with the intrinsic worth of living beings. The Gaia hypothesis, which states that the planet is a self-sustaining organism, is a way of looking at the planet and motivating people to visualize it as a "person" they should care about. . Religion is a specific set of organized beliefs and practices, usually shared by a community or group. Spirituality is more of an individual practice and has to do with having a sense of peace and purpose. It also relates to the process of developing beliefs around the meaning of life and connection with others

The principles of sustainability are the foundations of what this concept represents. Therefore, sustainability is made up of three pillars: **the economy, society, and the environment**. These principles are also informally used as profit, people and planet.

Religion can contribute to sustainable development. This can be seen, for example, in the successful campaigns by Muslim imams against female genital mutilation, in the provision of

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humanitarian aid to crisis regions by faith-based non-governmental organisations, and in the Pope's efforts to promote environmental conservation. At the same time, different religious positions can serve to intensify societal and violent conflict. As such, international policy-makers engage in dialogue with religiously motivated organisations or actively involve them in identifying and implementing solutions. Consequently, state and religious organisations may at times need to work together in the global North and South, not least in the context of German foreign and development policy, in order to achieve the global Sustainable Development.

Approach towards Religion:

Religionis a multifaceted and contested, if not vague, concept. To gain a proper understanding of the relationship between religion and development and the corresponding causal mechanisms, it makes sense to disaggregate religion into several dimensions. The idea of a multi□ dimensional concept of religion is not new (e.g. Barro and McCleary 2003; Campante and Yanagizawa□Drott 2015; Feess et al. 2014). Durkheim acknowledged the multidimensionality of religion by emphasising the beliefs and practices that religious communities follow. However, the different dimensions are often not clearly defined and separated. Following Durkheim and other works, our disaggregated definition of religion comprises four dimensions: religious ideas, religious practice, religious actors and organisation, and religious identity. Religious ideas are the foundation of any consideration of religion. These ideas refer to transcendence in order to explain the world and provide a meaning of life to individual believers and society as a whole. Religious practice, identity, and actors and organisation are epiphenomena of religious ideas. Religious ideas include written and formal norms (e.g. commandments and other holy writings), oral traditions, and inward religious ideas. More ambivalent exegeses of religious writings or ideas (e.g. by individual clerics) as well as religiously legitimized comments on contemporary events are also subsumed under religious ideas. They form the preferences of religious individuals and inspire their behaviour. The strength with which each individual believer follows these ideas varies and is commonly referred to as religiosity. Religious practice only includes direct religious behaviour such as worshipping, making pilgrimages, fasting, meditating, and constructing temples; it does not comprise any other activities not directly related to religious practice. For example, if certain religious ideas encourage hard work, the resulting behaviour, although religiously inspired, cannot beconsidered religious practice. The activities of religious actors are also not included in the dimension of religious practice. The latter activities are subsumed under the dimension of religious actors and organisation. The term □ actor□ refers to individuals such as clerics as well as to the formal organisational expressions of religious communities such as single groups, faith based organisations (FBOs), religious networks, or associations of several religious groups. The organisation of religious groups comprises formal and informal rules that govern religious communities, including official state and non□state laws and the unofficial organisational rules and hierarchies of religious communities. Religious practice and religious actors as well as the organisation of religious groups can reinforce existing religious ideas or promote new religious ideas. Finally, religious identity refers to individuals' identification with religious groups. People with the same religious identity share the same core beliefs and build group identities. Religious identities can follow the same in□ and out□group mechanisms as other group identities (such as ethnicity or class), sometimes independently from particular religious ideas within a given community.

A Multidimensional Approach towards Sustainable Development

The term □ sustainable development□ has gained in importance since the late 1980s. Although there is no commonly accepted definition, most scholars agree that sustainable development is multidimensional and results from human actions (carried out by individuals, groups, or organisations) on both the private level and the state level. In September 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which includes 17 goals and 169 targets. Unlike the preceding millennium development goals, the SDGs are integrated in that the targets of individual SDGs emphasize the interlink ages between SDGs. A second novelty is the agenda's universal character: the SDGs are directed towards both developed and developing countries. A conceptual problem arising from the integrative character of the 17 SDGs and their tar□ gets is that they often comprise multiple, overlapping aspects, which makes some of them vague and ambiguous. Thus, instead of separately reviewing evidence on the link between religion and development for each SDG and SDG target, we classify the SGDs into economic, social, and environmental dimensions of sustainable development and structure our review according to these three commonly distinguished dimensions.

Link between Religious Dimensions and SustainableDevelopment:

Conceptualizing Causal Mechanisms Conceptualizing causal mechanisms requires a number of assumptions. First, sustainable devlopement results from human actions and requires an agent's willingness and capacity (or Basedau/Gobien/Prediger: The Ambivalent Role of Religion for Sustainable Development 9 297/2017 GIGA Working Papers opportunity) to act. Willingness refers to a motive to act in a certain way or direction – that is, for or against development. Capacity (or opportunity) refers to an actor's ability to influence the scope or strength of the outcome. If the willingness or the capacity to act is absent, development cannot take place. Second, different religious dimensions – although often occurring in conjunction – exert distinct influences on sustainable development through the different effects they have on agents willingness and capacity. They can hinder or spur sustainable development, depending on the direction and strength of their effects. For example, the religious practice of Ramadan fasting has the potential to slow down economic growth (Campante and Yanagizawa Drott 2015) (direction), yet the magnitude of this effect depends on how strictly Ramadan practice is followed within societies (strength). Third, different religious dimensions have different effects on various dimensions of development. This results in quite a large number of possible "bilateral" causal relationships, which take different forms and go in different directions. For instance, religious ideas on work ethic could foster economic growth, whereas certain religious practices (such as a significant amount of time being devoted to prayer) could hinder economic growth. Moreover, a religious dimension can have differing effects on distinct development dimensions. To take one example, the behaviour of believers motivated by the religious idea of giving to the poor may reduce inequality and foster social relations, but it may also hamper economic growth if less money is available for investment. The magnitude of these effects in turn depends on the relevance of the religious idea. Fourth, in addition to direct bilateral relationships between religious and developmental relations, there can also exist indirect mechanisms. Religious dimensions can be related to other religious dimensions, and the effects of these relationships can indirectly impact development dimensions. For instance, religious practices often function as an amplifier for religious ideas or identities. The practice of visiting religious services may strengthen certain religious ideas and religious identity. In addition, religious dimensions can impact non religious and non developmental dimensions, which then affect development. Fifth, all mechanisms are embedded in a context of surrounding conditions that may influence development independently or in interaction with religious factors. Conflicting relationships between the religious dimensions are possible as well and have already been outlined with regard to religious practice. Similarly complex and ambiguous are the interrelations between developmental dimensions. Thus, the causal impacts of religious dimensions on developmental dimensions can be ambivalent, interrelated, reinforcing, reversing, or conditional upon each other.

Conclusion

Indeed, a central aspect of religious freedom is that it gives faith groups license to innovate and contribute to the wellbeing of individuals, communities and nations. But where religious freedom is curtailed, so are such innovations and also the sustainable development is a very important concept that needs to be understood and implemented if we want to preserve our planet and its resources for future generations.

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A Study on Sentiment Analysis using Natural Language Processing

Priyanka Samarth **Neetu Amlani**
(priyankasamarth@ymail.com) neetu.amlani@gmail.com
Computer Science DepartmentS.S.Maniar College of Computer and Management, Nagpur.

Abstract–Sentiment Analysisalso referred as Opinion Mining has its use in several applications, which include social networks, analysis of opinions about products and services etc.With the growth of social media such as reviews, forum discussions, blogs and twitter, importance of sentiment analysis is also increasing. Nowadays, consumers prefer user reviews and discussions which are posted by other customers on the web about the product while taking purchase decisions. Sentiment Analysis deals with valuing whether the assessmentabout the entity has a positive or negative review. In this paper, we present a study covering the different ways of representing Sentiment Analysis techniques through graphs, tabular formats and star ratings.

Keywords: Sentiment Analysis (SA), Natural Language Processing (NLP), Opinion Mining.

Introduction–

The procedure of finding out and extracting particular information from raw data is known as Sentiment Analysis. Sentiment Analysis or Opinion Mining is one of the major errands of NLP. In last few years, NLP is gaining grounds to perform Sentiment Analysis. The reason behind this is that NLP can help to automatically extract and identify the sentiments expressed in text data rather than human annotations. As the marketplace for consumer products moves to the Internet, the shopping experience changes in a way that makes much of the information regarding the use products available online and generated by users.[7]

NLP is an approach that helps to analyse and present textual data for the purpose of processing this information for a variety of task. Sentiment Analysis and text mining are the processes for such analysis which can categorise the statement in the reviews. The reviews and posts on the web are mostly not structured. But due to advance in the discipline of machine learning, now it is not just about interpreting the text but also about analysing it and taking decisions. Also it is not possible to go through so many reviews in bulk, given by consumer. So the need arises for NLP. [16]

sentiment expression of particular topic is defined in NLP which classifies the polarity of the sentiment lexicons.[1]. Rather than classifying the sentiments of whole text NLP recognises the text segment with subject and sentiment lexicons to carry out classification.[12]

Sentiment is an outlook, belief or judgment which is incited by feeling. Sentiment analysis is a type of Natural Language Processing for tracing the attitude of the community about a particular product or topic. Internet is a resourceful place with respect to sentiment information. From a user's perception, people are able to post their own content via social media, such as forums, micro-blogs, or online social networking sites.

Sentiment analysis creates advantages for business owners to identify their popularity among customer.[6] It also recognizes how customer think about their product or service [11] and assessing the effectiveness and capability of business brand communication and social media [12] and evaluate their business flow of stock price through social media [13].

Sentiment Analysis is important because it can be used to automatically identify the overall sentiment of a comment or review, which can be helpful for a variety of different applications. For example, Sentiment Analysis can be used to automatically ensign consumer`s reviews that are probable to be positive or negative. On the basis of the reviews one can change his or her opinion. Thus this Sentiment Analysis technique is helpful in decision making not only for quality online shopping purpose but also for quantitative purpose. This analysis also affects the sales of products which also effects third-party seller on the retailing platforms too.

Few keyarenas of research predominate in Sentiment Analysis are sentiment classification, feature classification and opinion summarization. Sentiment classification deals with classifying entire document according to the estimations towards certain entities. Feature-based Sentiment classification

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on the other hand considers the opinions on feature of certain objects. Opinion summarization task is different from traditional text summarization because only the features of the product are mined on which the customers have expressed their opinions.Any online item with large amount of positive reviews provides a powerful comment of the validity of the item. [8]

Literature Review

Sentiment Analysis is often used in combination with other NLP algorithms to perform tasks such as topic modelling or text classification. The task of sentiment analysis is to classify the polarity of a given text. The polarity can be positive, negative or neutral. Based on polarity, a training set is prepared and further classifier is implemented to classify the reviews as positive or negative. Positive reviews can be good, happy or best whereas negative reviews can be worst, awful or bad as depicted in Fig. 1.[4]

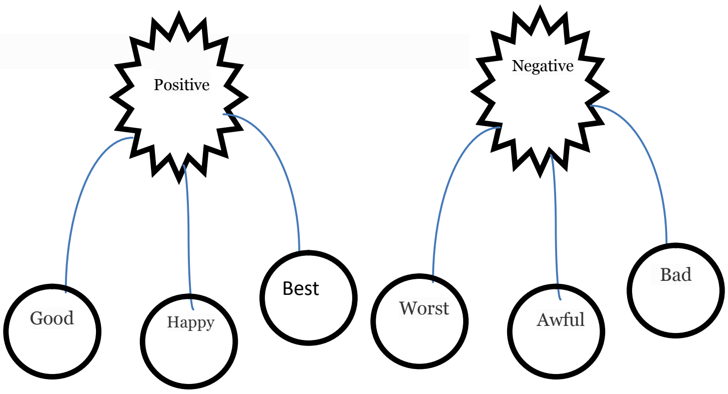

Fig 1:Classification of polarity of Sentiment Analysis.

In this paper, we will user customer review about a particular product and then use Natural Language Processing technique to analyse the sentiments of the responses or comments from the customers.

Sentiment Analysis is aforthcomingarena that is becoming significant to understand public view on products and topics. However, NLP is still not widely used and its complexity can be a barrier for the average person. This is where data visualization can be helpful. By presenting the data in an easy to understand format, such as graphs and charts, people can get a better grasp of the sentiment of a particular product or topic. A benefit over conventional methods isthat it is easy to use,removes average as per week, has multiplatform and has bar graphs for easy understanding.Our main objective is to extract opinions from the internet and predict online customer's preferences, which could prove valuable for economic or marketing research. The literature distinguishes between different kinds of online consumer platforms.[10]

Representation of Sentiments

(i) Graphical Review

Data visualization is an important technology in the coming future, as data is increasing size and complexity. Hence our system summarizes the results as bar charts and pie charts that help users to view and directly understand the sentiment extracted. [9]

Data used in this paper is a set of product reviews collected from Flipkart.com. From September to December 2022, data collected, in total, over 5.1 million of product reviews in which the products belong to 4 major categories: clothes, footwear, electronic, and home (Figure 2). Those online reviews were posted by over 3.2 million of reviewers (customers) towards 20,062 products. Each review includes the following information: 1) reviewer ID; 2) product ID; 3) rating; 4) time of the review; 5) helpfulness; 6) review text. [5]

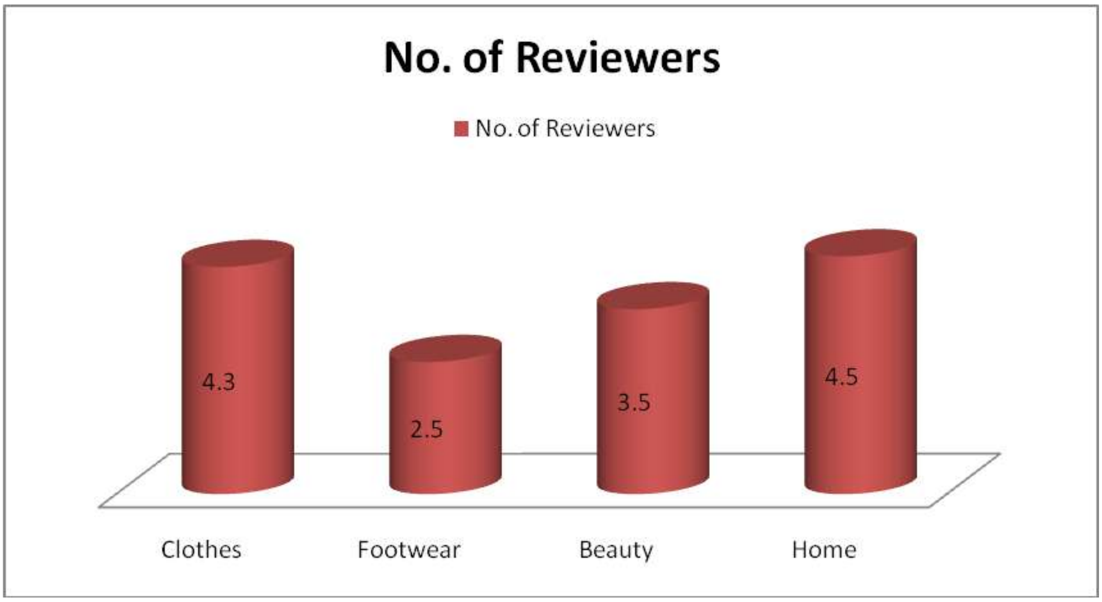

Fig. 2 Data based on Product Categories

(ii)Star Review

Data used in this paper is a set of product reviews collected from FlipKart.com between Septembers to December 2022. The aforementioned flaws have been somewhat overcome in the following two ways: First, each product review receives inspections before it can be posted a. Second, each review must have a rating on it that can be used as the ground truth. The rating is based on a star-scaled system, where the highest rating has 5 stars which show that the product is of best quality and also liked by customers. Lowest rating has only 1 star. [3]

Thus, when a sentiment is extracted it is further sent to polarized method. This method further returns +1 for a positive sentiment and -1 for negative sentiment.

Star Level	General Meaning
☆	I hate it
☆☆	I didn't like it
☆☆☆	It's Okay
☆☆☆☆	I like it
☆☆☆☆☆	I love it

(iii) NLTK Review

Natural Language Processing with Python provides a practical introduction to programming for language processing. Written by the creators of NLTK, it guides the reader through the fundamentals of writing Python programs, working with corpora, categorizing text, analyzing linguistic structure, and more. NLTK is the most famous Python Natural Language Processing Toolkit.

NLTK has been called "a wonderful tool for teaching, and working in, computational linguistics using Python," and "an amazing library to play with natural language." [4]

(iv) NLTK Review

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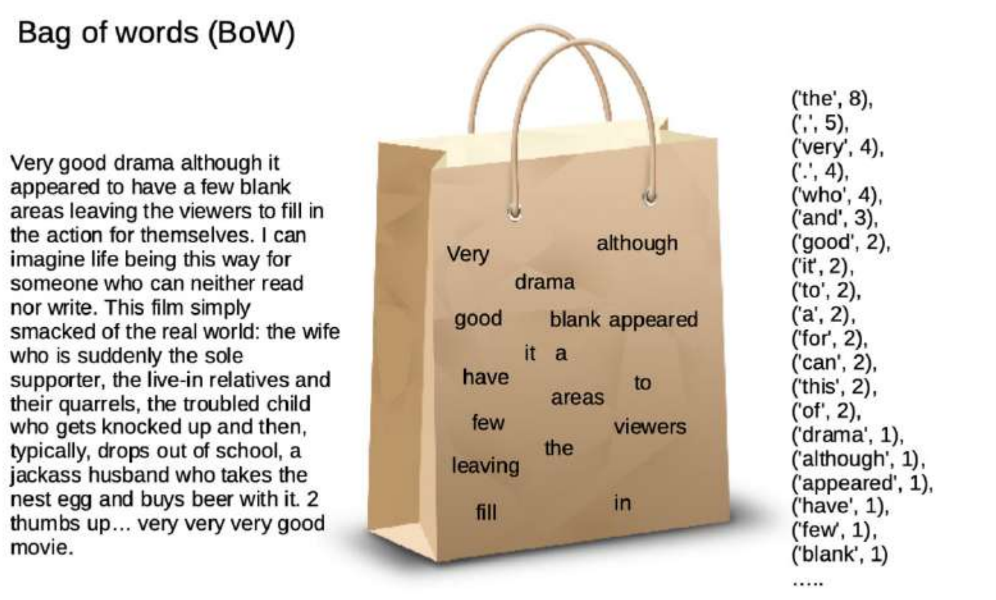
(v)Summary Tabular Review

The following review includes ratings and review text including helpfulness ratings, along with product metadata like descriptions, prices and similar products that customers also viewed. [2].This presentation helps to get a quick idea about the ratings of the respective products.

Books	5 Cr. (8,898,041 reviews)	Ratings only (22,507,155 ratings)
Electronics	5 crore (1,689,188 reviews)	Ratings only (7,824,482 ratings)
Movie & TV	5 crore (1,697,533 reviews)	Ratings only (4,607,047 ratings)
CDs & Vinyl	5 crore (1,097,592 reviews)	Ratings only (3,749,004 ratings)
Clothing	5 crore (551,682reviews)	Ratings only (5,748,920 ratings)
Home & Kitchen	5 crore (982,619reviews)	Ratings only (2,023,070 ratings)
Beauty	5 crore (198,502 reviews)	Ratings only (2,638,172 ratings)
Digital Music	5 crore (64,706 reviews)	Ratings only (836,006 ratings)

(vi) Bag of Words Review

Natural Language processing technique of text modelling known as **Bag of Words** model is used whenever we apply any algorithm in NLP, it works on numbers. We cannot directly feed our text into that algorithm. Hence, Bag of Words model is used to pre-process the text by converting it into a *bag of words*, which keeps a count of the total occurrences of most frequently used words.This model can be visualized using a table, which contains the count of words corresponding to the word itself.



CONCLUSION-

In the business world, sentiment analysis can be used to track customer satisfaction levels, to gauge public opinion about a company or product, or to monitor employee morale. It can also be used to predict stock market movements. These are the few uses of Sentiment Analysis. There is lots of research on analyzing sentiment from various E-Commerce websites. Our survey highlights different methods of representing the Sentiment Analysis techniques.

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Digital Transformation of Indian Economy-A Re-look at Data Privacy Problems

Dr. V. Rajendra Prasad
Assistant Professor Of Commerce Vivekananda Government Degree College Vidyanagar, Hyderabad-500044

INTRODUCTION

Today, the digital tsunami and the speed at which it is moving is compelling businesses to relook into their operative model, their strategic plan and also their framework. HR also proactively or reactively has to undergo this test of time and transformation and adopt to this new wave. This is easier said and done in the present context. In fact, according to a recent Gartner report, 'HR organizations spend as much as 70-80% of their time dealing with administrative activities and employee/manager questions and issues'. In such a scenario, are we prepared for the next leap forward? Will digitizing certain HR processes, just for the sake of it, give us the desired outcomes or will buying expensive technologies solve our existing people problems in the organization? How should we look at being a part of the digital revolution and navigate within the organization and keep the relevance of 'Human' in HR where AI, ML and talking bots are taking centre stage.

The Ten Biases of Digital Technology and it's Effets

Saying : Only explicit information is delivered. Implied messages-some-times more powerful and important-are communicated less effectively, or not at all.

Homogenizing: All information is flattened or reduced to a monotone. Differentiation between levels of importance of messages or tone (e.g., complimentary versus insulting) is lost, often resulting in miscommunication.

Stripping: When the periphery is cut out, or "stripped," the context needed to create and support meaning is lost. In interactive communication, stripping also eliminates serendipitous opportunities for making connections

Reframing: Replacing the context, or frame, in which a message was originally created with another (e.g., printing a Web page on 8-1/2"11" paper) can alter our conceptualization of information. On another level, the frame of technological media can be either falsely authoritative or discrediting.

Monosensing: Monosensing overloads one part of the brain, distorting our perception and leaving important sources of intelligence untapped.

Deflowing: Creating flow out of "snapshots" of information requires mental energy. Pauses as well as context switching constantly interrupt our focus and mental processes.

Defamiliarizing: Digital technology leaves us uncertain of our information types and formats. Genre specific peripheral cues are lost through homogenizing, stripping, and reframing. Search engines, for example, can't tell the difference between business documents and journal articles.

Uglying: Interactive, multimedia design is still in its infancy, leaving most digital design awkward and clumsy. The result-uglying-is most often caused by ignoring the periphery.

Reifying: Reifying reduces and restricts our range of activities to only those that have been digitized or are digitizable. This system closely resembles "work to rule," thereby discouraging trust and creativity, and suppressing the opportunities for emerging processes, activities, relationships, etc.

Destabilizing: All biases together create a destabilizing effect leaving users upset, frustrated, and exhausted.

REVIEW OF LITERATURE

Since 1975, Data security has developed speedily. Developments in cryptography such as public-key encryption, digital signatures, the Data Encryption Standard (DES), key safeguarding

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schemes, and key distribution protocols have been seen over the years. We have technologically advanced procedures for authenticating users, or hand off record data to users with minor security permissions. New controls for protecting data in databases and new approaches of getting information from these databases without proper authorization have been discovered. The hypothetical and real-world limitations to security are now better understood by IT personel (Denning, D.E. 1982).

Ojective of the Paper

The Present paper is a descriptive one with a sole objective of exploring the significance of digitalization, biases of technology with their effects and the role of Privacy in the Digital Economy.

In today's view, there are three aspects an HR professional needs to evaluate before riding on the digital band wagon:

1. Evaluate your business realities.
2. People-first approach.
3. Test before you trust.

- **Evaluate your business realities**

Every organization is at a certain stage of their journey. Their size and nature of business play a critical role in determining their ability to be agile. While organizations may have all the right intent but people as well as the organization itself take years to fully embrace any change. Hence, the leadership team must first align its thought to what going digital means to the organization and how it impacts their business model.

HR, as a strategic partner, has a dual role to play. First is to highlight the present scenario on people and the organization's adaptability to change - like looking into organization demographics, organization workflow and organization's competence level. Second is to integrate the right people into the organization and help the existing employees and leaders gain the desired competencies to be able to drive this transformation. Before looking into its own functional realities, HR need to evaluate the business realities, think innovatively to drive communication and sensitisation among the people to being future ready. It is only then that HR's desire for a new technology will gain relevance.

- **People-first approach**

Maximum firms today are organization-centric, not employee-centric, which serves as a major bottleneck for executing HR digital transformation. Most conversations are on reducing cost and reducing people basis which approvals are given on any technology investment. While this is one aspect of the outcome, the other aspect which is mostly overlooked is on building a system that provides a customized employee experience. Imagine a situation where employees can make their choices on the salary structure they would like to have, benefits they would like to avail, decide their place of work and their working hours, choose their career path and decide the training they would like to undertake. Many progressive organizations like Unilever, IBM, Google, etc, are already speeding up on many of these employee-centric approaches to HR, and digitization would definitely help enhance this experience better.

The next level of conversation for HR is to be able to influence the leadership team on having discussions pertaining to employees becoming increasingly digital in their personal life and the need for the organization to adapt to this new workforce. Today, employees using Google, Bing and other search engines are only two clicks away from finding the information they need, some even get it personalized, and they expect the same in their work environment as well. Aggregators like Uber, Ola, Airbnb, etc, are providing attractive offers and rewards on frequent intervals and similar expectation on instant gratification is what the new generation seeks. Hence forHR, digitization should be able to resolve some of these expectations by building on a people-first approach. Organizations like Unilever, Google, and IBM are already adopting this approach to be more relevant to the employee needs.

- **Test before you trust**

Digital transformations spawn marvels and opportunities but there is also a significant ethical concern with regard to data privacy. Today, for any organization data is power, but in most cases, there is a lack of initiative by the companies to create ethical and control policies as well as train people in handling data with care and responsibility. HR as the custodian of employee data in the organization has to be sensitive on how this data is being used and how employee privacy is protected. In selecting your HR software, the vendor credibility becomes paramount when you have tons of personal information floating in the cloud. Hence, while the idea on new HR digitization may look appealing, who knows whether it could be a Trojan Horse implanted to extract valuable information from the organization which has way better market value in comparison to the software cost.

In this digital era, our fascination is more on the front-end' and majority of us may not have the competence and the willingness to look beyond. However, Human Resources as the conscience keeper in the organisation, has to venture into asking the difficult question on talent readiness, skill gaps, privacy issues and ethical codes which are critical for the organization's sustainability in this new digital era.

PRIVACY IN THE DIGITAL ECONOMY

If, or is it when?-computers are permitted to talk to one another, when they are inter-linked, they can spew out a roomful of data on each of us that will leave us naked before whoever gains access to the information... But we must be tigilant against their misuses, either accidentally or intentionally.

Walter Cronkite, 1980

THE EMERGING FIRESTORM

Privacy has been an important issue since the first person peeked Privacy around the corner of a cave to see what his fellow cave-dweller had caught for dinner. Since then, various philosophers, writers, politicians, unionists, businesspeople, and concerned citizens have written about and debated the many dimensions of the issue.

In precomputer times, if you wanted to surreptitiously learn a lot about someone, you would have to go to a lot of trouble. Let's say you wanted to trace the activities of a fictitious Jeremy Smith, described in my new book on privacy, coauthored by Ann Cavoukian, entitled Who Knows? Safeguarding Your Privacy in a Networked World. In an entirely paper-based world, you would have to physically travel to each location where paper files and records of Smith's paper-based transactions were located, and review each piece of paper. This would be a laborious exercise requiring considerable resources. If Smith lived in or traveled to various countries, the problem would be compounded. Surveillance of Smith's activities would likewise require considerable resources. It might have been feasible to track the activities of one or two people in this manner, but it would not be feasible to track the activity of thousands on a routine basis.

The computer began to change this. It became easier to follow an electronic trail and do it without physically leaving a central location. However, before information highway times, computer-based threats to privacy were finite as a result of lack of database integration, the low penetration of access devices, the relative unsophistication of users, poorly connected networks, and an overall limited use of information technology in business and social affairs. Such limitations are now fewer in number and should cause us to pause for concern. Privacy, confidentiality, and security are related but different concepts. Let's use an example to explain. The hotel industry is struggling with how to bring travel and tourism planning and bookings onto the Net. Weak security of the Net and the challenge of putting proper procedures and safeguards in place are a problem. For example, what happens if someone from Hilton books all the rooms of Hyatt worldwide-or vice versa? Systems can be put into place to help avoid such mischievous or fraudulent activity. But that is just the beginning. Hotel industry executive John Davis describes the challenge:

If I can break the network security, think about the information you provide when you book a hotel room on the Net. I've got your name, address, city, state, ZIP, phone number, and credit card number. I know where you're going; where you're staying; when you'll be there; how much you're going to pay, and a rough idea of your income because of your choice of hotel. I've got enough information to apply for a credit card. I know whether you're going to be staying alone or not. I even know what day to back my van up your driveway and start unloading your possessions. I'm in business big time!

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The example helps to clarify the key concepts. Bad systems security leads to potential breaches of confidentiality, which cause an invasion of privacy, which results in violations of the security of the person or property.

There are many definitions of privacy, none of which is perfect. Like freedom, privacy is best understood when it is being undermined-you know what privacy is when someone is trying to take it away. Privacy involves the right to be left alone and to determine with whom we share the details of our personal lives or personal information.

Confidentiality is a narrower concept. Violation of the confidentiality of your personal information undermines privacy. But privacy can be achieved without confidentiality. You may choose not to share your information in the first place that is, not entrust others to keep it confidential. Security is required to maintain confidentiality and therefore privacy.

Privacy is the overriding concept. It must be balanced with other val- ues. As with all rights, there are trade-offs and competing rights and interests that must be respected. Economic interests may cause consumers to trade privacy for convenience, such as occurs in credit card shopping. Efficient government requires personal information for taxes, drivers'licenses, or health care. Privacy may also conflict with publicly accepted principles of law enforcement and public safety.

Two other related concepts are censorship and free speech. These issues have been raised because of the overstated but very real problem of smut on the Net. Members of Congress who seek to pass and enforce laws prohibiting communications of certain material on the Net become censors. The problem is not simply that censorship is infeasible on the Net; it is a dangerous approach to solving the problem of obscenity because it prohibits free speech between consenting adults. This is not to say that criminal activities on the Net should be tolerated. Threatening another person with death, conspiring to commit a felony, or conducting an illegal drug transaction are crimes which should be enforced whether they occur in cyberspace or the street.

But many advocates of policing cyberspace go beyond this, arguing that it should be a crime to communicate obscene material-even between consenting adults. So if Bob, Carol, Ted, and Alice share a kinky fantasy in cyberspace they are breaking the law! The implications for both freedom of speech and privacy are clear.

If censorship is unworkable and undesirable, then how do we protect our children? The solution lies in two areas.

1. We need a multitude of rating services reflecting the different values we hold. 2. We need technological screens so that parents can control what information comes on to their children's workstations.

There should be a Southern Baptist rating service and one from the civil liberties association and hundreds more to provide you with a choice which corresponds to your sense of ethics and approach to childrearing.

You subscribe to the service and implement the corresponding filter for your family. Already there is software such as Vancouver-based "Net Nanny" which catches certain words or phrases you select (such as "where do you live") and shuts down your child's computer. There are solutions which don't take the draconian step of killing freedom of expression and leading us down the slippery slope of the erosion of privacy.

Back to privacy. The relentless expansion of the digital economy is causing growing concerns about privacy, as evidenced by numerous studies. For example, a 1994 Gallup Poll conducted for Andersen Consulting showed that 85% of the sample expressed concern about the personal information that might be collected about them on the information highway.

Such results show that there is an emerging firestorm on this issue. The I-Way will intensify concerns about privacy, as interpersonal communications, human work, social development, and entertainment transactions become based on the network. Companies that do not manage this issue are at risk of severe damage in the marketplace as consumer and public sensitivity grows.

Ethical issues apart, every business needs to develop appropriate policies and practices to address these issues, regarding both employees and customers. Effective privacy strategies will become a requirement for effective business strategies as business shifts to the new information infrastructure. Proactive strategies to address privacy problems can contribute to good information and resource integrity and can help to manage the transition to the new environment. Companies need to be proactive in order to avoid being saddled with possible inappropriate regulations made by governments, unions, or other parties.

As the electronic web grows, the day-to-day activities of consumers, employees, game players-people communicating with one another-will leave an ever-larger digital trail. Computers will be able to record what movies we watch, what databases we access, what goods we buy, with whom we interact, and the content of our communications.

"Every time you make a telephone call, purchase goods using a credit card, subscribe to a magazine, or pay your taxes, that information goes into a database somewhere," writes leading cryptography expert David Chaum. "Furthermore, all of these records can be linked so that they constitute, in effect, a single dossier of your life-not only your medical and financial history but also what you buy, where you travel, and whom you communicate with." But the danger is more complex than this.

• Transactional Data and Personal Profiling. Information that has previously been stored in a vast number of separate databases can now be merged, sorted, and analyzed, resulting in the creation of a personal profile or data image of a subject based on his or her electronic data composite. As described in Who Knows?, "Not only is it possible to track someone's activities, but also to sketch a fairly accurate picture of that person, enabling you to visualize them without ever knowing them and without them ever knowing. These technological developments have led to the creation of a massive information-gathering industry." Credit card companies sell their lists and their transactional data to other companies. This may be acceptable when the firms involved are reputable financial institutions; the costs to privacy may be offset by the benefits of being able to use a credit card. But in the new digital economy, every business large or small reputable or not-will have the capacity to generate information files on its customers or to purchase data from other sources.

• Individual Authentication. As more and more consumer transactions and communications are conducted on the Net, it becomes critical to have effective identification of the sender and receiver. For example, the extension of banking terminals or credit card purchasing into the home raises many new issues of authentication. Conversely, how will a person rejected for a job discover that the reason was an incorrect entry the personal database that's equivalent to today's credit bureau?

• The Extension of Smart Products. As chips become embedded in everything, privacy problems are exploding. For example, as smart cards proliferate, the pressure for reliable authentication grows, including biometric indicators such as thumbprints or bioretinal scans. But do such techniques lead us toward a society where it is necessary to carry identification documents on one's person at all times? Or when you wear a shirt with a chip in it, your shirt may carry a vast range of personal information including who you are, where you bought it, the cost, and even personal financial information. Without getting too paranoid, let your mind consider some truly bizarre possibilities. Millions of people have pacemakers. There are now chips that can be inserted into breast implants. Perhaps chips would be inserted into other parts of peoples'bodies for nonmedical reasons. We could track repeat offender pedophiles, or repeat offenders in general, or offenders in general, or maybe just offensive people. Microprocessor-based products can be attached to children to discourage abduction or locate missing kids. What about chips in children for extra and permanent safety?

• Confidential Information. As society moves toward managed health care, it is clear that comprehensive cradle-to-grave patient records could facilitate better health care and reduce costs. But what procedures will be used to ensure that information cannot be inappropriately accessed both inside and outside the health care system?

• Surveillance. In Orwell's dystopian 1984, citizens were watched by Big Brother using video cameras. Although such surveillance is growing, the larger danger comes from "little brother"-the capacity to monitor activity through the use of detailed personal information. "Dataveillance, as Roger Clarke calls it, "is supplanting conventional surveillance techniques." The new technology brings a chilling capacity for surveillance on every individual, whether as a student, customer, employee, taxpayer, or recipient of government services. For example, to whom and how should we give the right to access employees' electronic mail (text, voice, and soon multimedia)? What levels of

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monitoring of workstation activity (for example, in a telework situation) will be acceptable? The very where abouts of a given individual will be readily known by locating that person's portable telephone or other information appliance.

● Physical Security. As people conduct more banking, work, utility and appliance management, and other monitoring activities in the home, security concerns will grow about the networks involved and the individuals operating them. It's one thing to have a secure system in an office environment. How will security be similarly controlled on so many offsite locations? The home may become a target for intruders who could force the transfer of funds or engage in other illegal activities.

"BIG BROTHER DOESN'T NEED TO WATCH!"

You might be wondering where all the information contained in these databases is coming from. You don't recall giving away any information that could be used to pry into your life. Really? Have you done any of the following lately: bought a car, bought a house, bought a dress, bought a book, bought something for indigestion at the supermarket, bought an airline ticket, reserved a room at a hotel, ordered underwear from a mail-order catalogue, joined a book club, used a telephone, used a bank machine, opened a bank account, ordered a pizza, rented a video, filled out a product warranty card, subscribed to a magazine, applied for a government program, applied for a job, applied for a loan, applied for insurance, sent an e-mail message, gone to the hospital, had a baby, had a blood test, had a prescription filled ... get the picture?"

GOVERNMENT GUIDELINES

Over the years, governments have taken steps to protect privacy. Significantly, in September 1980, the OECD (Organization for Economic Cooperation and Development) developed a set of guidelines to assist in the protection of personal information. The principles contained in these guidelines are commonly referred to as the Code of Fair Information Practices (FIPs) and form the basis of all privacy legislation worldwide. The essence of these principles is quite simple:

• Limit the collection of information (collect only information you need).
• Where possible collect information directly from the individual to whom it pertains; inform the subject of the purpose of the collection (tell them why you need it).
• Use the information only for the purpose intended and for which the subject was informed.
• Give subjects the opportunity to access his or her personal information and the right to seek its correction if incorrect.

The guidelines have been widely accepted among privacy advocates and more broadly by many governments and businesses. The guidelines are more than fifteen years old, however; they urgently need to be updated to incorporate the implications of the information highway.

contrast to Europe, the United States has tended to support voluntary codes of practice. The information highway is causing government and business to take a new look at the issue. The Privacy Working Group, one of several working groups of the National Information Infrastructure task force, is looking at the issues of privacy and integrity of information. The group has developed a set of principles and guidelines for fair information practices on the information highway. This is intended to update the OECD code to make it more applicable to electronic environments as well as to update the codes developed in the early 1970s in the United States.

The basic assumption is that individuals are entitled to a reasonable expectation of information privacy. Furthermore, the responsibility of all participants is to ensure that information on the National Information Infrastructure (NII) has integrity-that it is secure through the use of whatever means are appropriate as well as accurate, timely, complete, and relevant for the purpose for which it is given.

To achieve this, the NII has developed principles for information collectors (i.e., entities that collect personal information directly from the individual), information users (i.e., information collectors and entities that obtain, process, send, or store personal information), and individuals who provide personal information. Some critics argue that the new code departs from the OECD's approach that confers rights upon data subjects and responsibilities for data users (the organizations responsible for collecting personal information). The effect, critics say, would be to shift emphasis for protecting privacy away from data users and onto individuals. The language of the newly proposed

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code is directed not just at governments but to private enterprises as well as individuals. For the first time, individuals will be expected to take some responsibility for the protection of their personal information, especially in highly networked environments where the occurrence of multiple disclosures will probably be the norm, not the exception.

There are many privacy initiatives underway in Canada, both at the federal and provincial level. For example, the federal government's Industry Canada has published a paper "Privacy and the Information Highway," which outlines the main questions and solicits responses from interested parties. In January 1994, Quebec introduced privacy legislation that extended coverage to the private sector. This is the first jurisdiction in Canada or the United States in which commercial enterprises will now be subject to privacy protection laws.

PRIVATE SECTOR INITIATIVES

More and more it will make good business sense to pay attention to privacy issues. Corporations that act ethically and with a sense of social responsibility in keeping with public and market expectations will be more likely to weather the firestorm, protect intellectual property, and preserve societal norms.

Many of the major telephone and cable companies in North America have privacy initiatives underway. The Direct Marketing Association (DMA)-the organization of companies that use direct marketing techniques, telephone solicitations, and growing networked-based marketing-has made considerable effort to tackle this problem. The Canadian Direct Marketing Association has developed a privacy code respecting the personal information obtained regarding its members' customers. Both organizations offer a "do not call" and "do not mail" service, allowing people to opt-out so that their names and addresses are not given to other companies for marketing purposes.

With the implementation of its Privacy Action Plan, DMA and its Privacy Task Force continue to lead in ushering in a new era of effective self-regulation for direct marketers. The Privacy Action Plan initiatives include intensive analysis of self-regulatory programs, increased industry education programs, expanded consumer education, and redoubled legislative outreach efforts.

ALTERNATIVE APPROACHES TO THE ISSUES

There are five main approaches to the issue of privacy:

- **LAISSEZ FAIRE**

This view, expressed by those who say "why should you worry if you have nothing to hide," is held by fewer and fewer people these days, especially as the world is introduced to the chilling potential for a cyberspace invasion of our personal and business lives. Some believe in laissez faire.

- **VOLUNTARY CODES AND STANDARDS**

Voluntary privacy standards, the norm in North America, provide the flexibility for organizations in different sectors to customize their approaches in keeping with the needs of their customers, employees, and regulatory environments. Further voluntary codes can be as strong or stronger than those enforced by law. However, the matter of enforceability raises several questions: Who is ultimately accountable? Where does an aggrieved consumer go for redress? As the value of personal information increases with the growth of the information economy, how can voluntary codes ensure protection? Past experience has not been encouraging.

- **REGULATION**

The trend in new technology is away from regulation to enable market forces to be more competitive and to accelerate the evolution toward a new infrastructure. There is widespread evidence that consumers favor legislation for privacy protection, however. Arguably, harmonization of basic rules that apply to information protection could be good for business and could also reduce the excessive bureaucracy created by the various patch-work approaches practiced in North America. Clear rules could also add to consumer confidence and help to avert privacy concerns by establishing a level playing field for all corporations providers and/or users of technology as well as individuals.

- **CONSUMER EDUCATION**

An active and informed public is the surest and most rational way to achieve privacy protection. It is only when society collectively comes to understand its common interests in these matters that privacy issues can be managed without excessive government involvement.

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- **TECHNOLOGY SOLUTIONS**

Ironically, technology may become one of the best ways to protect personal privacy and safeguard information. For example, the technology already exists that allows for unconditionally untraceable exchanges to take place. Encryption technology can be incorporated into software, embedded as chips in equipment such as telephone sets or palm-sized computers, or used in smart cards to provide fraud-proof authorization while at the same time allowing the holder to remain anonymous. The same technology can be used to provide reliable yet untraceable electronic cash. Such cash, stored in bits, can be loaded onto your disk or a smart card in your wallet and used as freely and anonymously as cash. David Chaum suggests a form of encryption based on public key cryptography and blind digital signatures. "In one direction lies unprecedented scrutiny and control over peoples' lives. In the other, secure parity between individuals and organizations. The shape of society in the next century may depend approach predominates." Business Week's Amy Cortese and Kelly on which Holland describe it as follows:

With [digital cash] the encryption not only protects the money from snoops and thieves, but also obscures the identity of the owner. Here's how: When you want cash, you make an electronic withdrawal from your bank account. The bank issues electronic currency-a series of encrypted serial numbers representing dollar bills and coins. Once encrypted money leaves your account, it can no longer be traced back to you not even by the issuing bank. When you spend it, your digital coins get deposited directly into the merchant's cash account."

Europe already has telephone systems that can be designed to "forget" the last few digits of a telephone number after placing the call, in order to protect privacy in billing statements. Electronic mail systems can be developed that provide ephemeral messages for personal use, a form of electronic disappearing ink.

CONCLUSIONS

Clearly, government guidelines, consumer education, and technology solutions will be important in avoiding the privacy firestorm. But responsible protection of privacy by business, acting out of self-interest, is also important to the future.

To begin, businesses need to build secure systems. An example of the dangers is a Home Page called "The Blacklist of Internet Advertisers." This is a list "intended to curb inappropriate advertising" on the Net. "It works by describing offenders and their offensive behaviors, expecting that people who read it will punish the offenders in one way or another." A list often ways to punish offenders is provided in the database. One popular way is to break into and disable or destroy their corporate systems. Life in the digital frontier can be dangerous, especially if your cattle ranch fences are not secure.

Each element in the "network of networks" requires appropriate levels of password protection, tiered levels of security, partitioned access according to the sensitivity of files, and rigorously enforced operating procedures and physical controls. 15 But that will not be enough. Peter G. Neumann, an expert on computer security, argues that collective action will be needed at a variety of levels if security is to be taken seriously and our existing "head in the sand" mentality has to change. He feels that an information campaign is necessary to make both computer users and systems administrators alike aware of the severity of the problem-Aware of how vulnerable their systems are to attack so that they will be motivated to employdefensive techniques. This must be a shared responsibility among vendors, customers, universities and government organizations."

A key to the solution may be a change in thinking on the property rights and dollar value of information. Ann Cavoukian and I argue that your personal information (everything from your weight to your social security number) belongs to you. You own it. It is your property. Others who obtain your personal information act as its custodians and are entrusted with its care. If such information has value, the owner should receive compensation for its use. "If people stop giving away their information and started thinking about it as they do other forms of property, expecting to have some control over it, and get paid for its use, then things would begin to change. For example, why not a royalty payment system for the commercial uses of your personal information?" We argue that there are dangers in extending this concept to treating privacy as a commodity, to be sold and traded in the marketplace. "Any consideration of economic gain in exchange for one's personal information should only be made in the private sector, in the context of commercial transactions. Legislated protections must continue to safeguard our fundamental rights, and the restrictions on the uses of our information must continue to apply to government organizations." But, we argue, what would stop someone from establishing a property right to personal information, which in turn would ensconce the right to control over your property?

Businesses can implement the "privacy makes good business sense" view in other ways. For example, you can offer your customers a range of options, including some that are privacy-friendly. Industry associations can adopt codes for their members that can have considerable weight. Businesses should cooperate with government in developing formal legislation in everyone's shared interest. Companies can cooperate to ensure the growth of proper security measures on the Net. And every company needs to conduct a privacy audit of its own practices, evaluating the requirements of customers, employees, and the public and implementing policies to ensure that this basic right is not obliterated.

Admittedly, this is not easy. Many Catch-22 situations arise. Customers expect you to make life convenient by using information you have about them. When you take on a new service at the bank, you don't want to fill out a form providing information the bank already has. But making things easy for the customer can cause grief, as one bank executive told us. Their management had a two-hour discussion about issues such as whether to acknowledge that they already had personal information on file. One debate was whether to use the first or last name when a customer opened another account. Or should the thank-you letter read "Thank you for opening another account with us?" or "Thank you for opening an account with us?" In many situations they decided the latter enabled better customer relations.

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A Comparative Study Of Using Plywood Or Hdhmr Board In Luxurious Furniture Making With Reference To Innovative Practices

Ms.Rakhi T. Shahu
Research Scholar VMV Commerce JMT Arts & JJP Science College Wardhman Nagar, Nagpur

Abstract

At present, luxury furniture is essentially used provide as aesthetic beauty to home decoration and for high standard interiors. In order to attract more consumers' luxurious furniture companies came up with uniqueness in their product. The increasing demand of having a luxury, comfortable, long lasting and relaxing experiences is prominently driving the growth for luxury furniture. This paper will focus on comparative study of wooden products with sustainable marketing.

Keyword
Marketing, Sustainable marketing, luxurious furniture product, Eco-friendly manufacturing.

Introduction

From an etymological perspective the word luxury comes from the Latin word "luxus" which means super abundance, excess in the way of life or a display of wealth aimed at satisfying desires that transcend real need. With the reference of sustainable marketing furniture market directly relates with the environment as its main component is wood. As we know there are different types of wood are present in environment. Using these woods, after processing it comes in the form of timber, Modified wood, Fuel wood, pulp and Paper wood, composite wood/plywood, types of plywood (MR Ply, BWR, BWP ply and Marine ply),sun mica, HDHMR (High Density High Moisture Resistance) board etc. Our living space, furniture, kitchen interior and exterior designs have evolved as per the western influence. But the core raw material is constant. Wood comes in usage for both interior and exterior. The wooden products are durable and bring pleasant environment to the customer's house for this reason they desires high quality wooden furniture. Therefore company create attractive, authentic and innovative product to gain customer's trust, positive impact on company.

Marketing

Marketing is about identifying and meeting human and social needs. One of the shortest good definitions of marketing is "meeting needs profitably". When IKEA noticed that people wanted good furniture at a substantially lower price, it created knockdown furniture. These firm demonstrated marketing ability to make good judgement and turned a private and social need into a profitable business opportunity.

The formal definition of **The American Marketing Association** "Marketing is an organizational function and a set of processes for creating, communicating and delivering value to customer and for managing customer relationship in ways that benefit the organisation and its stakeholders". We can distinguish between a social and a managerial definition of marketing. A social definition shows the role marketing plays in society for example one marketer has said that marketing's role is to deliver a higher standard of living. Here is social definition that serves our purpose: Marketingis a societal process by which individual and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with others. The aim of marketing is to know and understand the customer so well that the product or service fits him and sell itself.

Sustainable Marketing

since the 1980s sustainability has been used more in the sense of human sustainability on planet Earth and this has resulted in the most widely quoted definition of sustainability as a part of the concept sustainable development, that of the Brundtland Commission of the United Nations on March 20, 1987.

Sustainability: the ability to meet humanity's needs without harming future generations or without compromising the ability of future generations to meet their own needs

Human sustainability: The opportunity for all people to maintain fulfilling, productive lives while preserving or replenishing the natural and economic systems that make their well-being possible.

Sustainable marketing may also be defined as the process of creating, communicating, and delivering value to customers in such a way that both natural and human capital are preserved or enhanced throughout. Natural capital Consists of all the resources nature provides, including both materials and ecosystem services. Human capital consists of all the resources that people provide, including labour, talent and creativity.

Objective

1. To study the concept of sustainable marketing with reference of wooden furniture market.
2. To study the present trend of customer choices.
3. To study the concept of societal marketing.
4. To study the factor affecting furniture market.

Research methodology

Secondary data was used for study. It was collected from books, study materials of profession courses and websites.

Comparative Study of Specific Wood Product

Since the beginning as civilization evolved, so did the use of wood Advances in manufacturing opened up the ability to use wood in even more utilities. Now we are looking decorative design and unique furniture pieces to interior around the world. Now in the product category plywood has been our go to option for fixed furniture for decades now. Due to its popularity, many homeowners and business are currently seeking plywood as a substitute for solid wooden furniture, which is cost effective and available in different variants.

Plywood

Plywood is very handy wooden product that can be used in almost everything from furniture to house construction. It is a versatile and highly demanded building material made by layering of thin sheets of wood veneer gives plywood a strong strength and flexibility. It is most commonly used for furnishing houses and offices. Apart from this, it is also used in woodwork for boats and ships, building construction, to make a light partition and external walls and also in the flooring system. Plywood is an engineered wood which is also known as plywood made by gluing together thin layer of wood which is bonded together with a resin under pressure, thus creating a thick, strong and flexible flat sheet. The quality of the ply depends upon the wood being used. Plywood may be made from hardwoods and softwoods.

Softwoods: pine, Redwood or Cedar etc.

Hardwoods: Teakwood, Gurjan, Ash, Maple, Mahogany, oak, And Teak or it can be a combination of both softwood and hardwood.

Types of Plywood

1. Commercial Plywood: It is mostly preferred in dry areas like living rooms, study rooms, offices, etc. It is most commonly used to make furniture, as wall panelling, partitioning, etc.

2. MR Ply: MR which means Moisture Resistant. It has good resistance to moisture in damp and humid conditions, making it a favourite material in tropical areas. However, this is not waterproof. The disadvantage of this product is that it will emit fumes, a pungent smell because it is an emission of urea. It is available in local market and also has low budget. But it is not water-resistant or waterproof the layers will start separating apart, after a certain period of time. The adhesive gets dissolved and the product loses its durability and strength.

3. BWP (Boiling water Proof Ply): BWS ply has a limit to which it can resist moisture when manufacturer make it exposing waterproof outdoor furniture constantly will eventually make it lose its shine, strength, and durability. Plasticizers, Resins and Adhesives make it waterproof to a certain extent.

4. BWR Ply (Boiling Water Resistant): BWR sheets are generally used for bathrooms as they are waterproof or can be used in kitchens wherever the water exposure is on the higher side.

5. Marine ply: Associated with water. Marine plywood is of superior quality and is waterproof to a great extent. It is best option for kitchens and bathrooms.

Advantages of Plywood

1. It has very good strength and durability compared to Medium Density Fibreboards (MDF).
2. It is available in different thicknesses ranges from 6mm to 25.5mm.
3. Plywood usually made out of different wood species.
4. It can be easily polished or painted according to choice of customers.
5. It can provide smooth surface for laminate or veneer to stick on.
6. It can hold screws well.
7. It can be cut in any shapes easily.
8. It is resistive to shrinking, warping, twisting, splitting and cracking.
9. Plywood's laminated structure distributes loads.
10. Plywood is very cost effective to use in structural applications such as flooring, shear walls, formwork and webbed beams.
11. It is economical as compared to solid wood.
12. A slight advantage of Plywood is superior tensile and shearing properties that are not available with any other kind of wood.

Disadvantages

1. Because the layers of veneers are seen at the edges, edges have to be finished either with laminate or veneer.
2. It often get splinter from the edges during transportation.
3. It is quite difficult to cut and mould.
4. It releases VOCs (Volatile organic compound) into the air. These are not safe to inhale and can be harmful to human health.
5. Water may damage Moisture Resistant (MR) grade plywood.
6. It is difficult to judge which wood veneer has been used for making the plywood.
7. It is costlier as compared to block board or particleboard.
8. Without some special resistance method after long- term get attacked by insects.
9. Because of localized failure of the adhesive used to attach the layers of veneer together moisture easily seeps into the wood through an unfinished side or through pinholes in the finish and dampens the surfaces and layers, causing it to expand.
10. There are some plywood's is not termite and borer resistant. Termites are always in the search for cellulose which is to be found in wood. It can be possible that some pinhole places remain same if proper techniques are not used.
11. It is not compatible with big-size doors, books shelves, beddings, etc. due to its flexible molecules.

HDHMR board

To begin with, HDHMR is a type of plywood that stands out amongst all other types. It's completely superior &different in terms of maintenance, features, and advantages to commercial plywood. However, most Indian customers aren't aware of HDHMR and its benefits compared to other types of plywood. For the past many decades, commercial plywood has been the preferred option of Indians for fixed furniture. This has started to change over the last decade or so, with HDHMR emerging as the first choice of architects & interior designers when designing homes for their clients. This has led to HDHMR becoming the most in- demand product compared to plywood. It won't be an understatement to say that HDHMR has taken over the plywood market to a significant degree. The statement that HDHMR is a revolutionary product is proven by the fact that even if you keep it underwater for ten days, zero defects will emerge in the product.

Now HDHMR Board (High Density High Moisture Resistance) is the most demanded product compared to plywood in the present days. Currently plywood growth is stagnant and not growing. To a larger extent the plywood market has been taken by HDHMR board.

Action Tesa was the first one who invented HDHMR and it was an instant hit in the market. This is highly moisture resistant and tougher than any plywood available in the market. HDHMR is made by combining fibre chips, forest wood waste through a homogeneous construction process. These fibre chips are pressed together to form a robust higher density board. The density of the product is better than other products available in the market. HDHMR board with higher density, unmatched quality and endless application is revolutionizing the Indian interior industry by replacing plywood.

The key applications of HDHMR board

1. Kitchen shutters
2. Door shutters, wardrobe, residential Area, desks & Lockers
3. Study table
4. Furniture where the risk of moisture exist
5. Gift items
6. Educational tools / casting for scientific instruments etc.

Advantages

1. It is environment friendly. The process of construction HDHMR board uses fibre chips which are extracted from plantation trees, agriculture waste and mainly 95% of forest wood waste.
2. HDHMR is a substitute for plywood.
3. HDHMR is manufactured using hardwood (made from eucalyptus) hence its density is greater than plywood.
4. With its uniform density & compact Core routing characteristics gradient - It Achieved by using gives it the best Special German Technology for MAT formation (Multi- Dimensional Bonding Technology)
5. HDHMR board is highly moisture resistant, which make it on high demand in extreme climatic areas.
6. These board has Borer& Termite Resistant qualities.
7. There are no core gaps - Ideal routable Substrate over plywood with sharp cut and routed edges.
8. It is made with special glue being used to make it water resistant Product.
9. It Absorbs less paints in the painting process thus it saves paint cost also.
10. It is innovative Application as it gives aesthetic value to finished product.
11. It has ideal surface to paste the laminate thus no possibility of no bubbles while pasting laminates.
12. It is high water resistant thus can be used in highly moist areas and climate.
13. It has low maintenance cost. It is easily clean with a damp cloth. It will not get scratched easily, but can be cautions while using utensil & items with sharp edges.
14. There is no waviness at surface so easy to Paste laminate, veneer or membrane etc.
15. It gives a unique finish to product because of its joint less surface.
16. Because of the multidimensional bond, the HDHMR doors come with higher screw withdrawal Strength & higher density them normal flush doors.
17. It can be made in any Structure or according to any architectures or customer choice.
18. It is very difficult to punch a hole in HDHMR door.
19. The higher density achieved through the combination of the hardwood particle board along with the special glue pressing techniques.

Therefore, it is not only an innovative choice for woodwork but also environmentally safe to manufacture.HDHMR Board has multi-dimensional bond with single layer glue architecture which provide higher moisture resistance compared than plywood products. It gives 10 years warranty. It has 850 kg/m^3 density. This hardwood particle when pressed through the glue, they form a unique particle water resistance, layer through the board. Now it is most preferred in kitchen. HDHMR is basically an advanced & enhanced version of plywood and is the perfect option for creating robust & sturdy furniture. It also provides excellent aesthetic value due to its ready & smooth surface that can be coloured with various gradient colours. It's also great in terms of maintenance, as HDHMR materials can be cleaned with lukewarm water.

Termite, Borer, Fungus Water Resistant

Using pressing technique, small cenusable particles get removed from these boards, which makes them termite -free too. There is no gap in the layer, so there is no fear of termite. Termite infestation can be cause unhygienic living condition and can lead to widespread damage to furniture and interior structure. The reason why HDHMR is termite – proof is small wood content is removed

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with pressing techniques. HDHMR board is the first choice for interior designers, architects and homemakers who want to give a luxurious look to their house. HDHMR board made from environment friendly material that promote eco- friendly nature with environment and also sustainability with toughness, durability and longevity that protects forest being over use or waste.

Disadvantage

1. These boards are slightly heavier due to its higher density, which adds more weight to the item.
2. After long-term use, some HDHMR boards might bend and lose shape.

Comparison between Plywood and HDHMR

1. Source: Plywood is sourced from wood veneer where HDHMR is sourced from forest wood waste and fibre chips. HDHMR is eco friendly wood product which gives sustainable use of wood.

2. Structure: Plywood normally has non uniform and low density while HDHMR has high density and uniformity across its surface. Because of it high density it is tougher than any other plywood.

3. Durability: Plywood is less durable than HDHMR as it has more tear n wear, while HDHMR is highly durable and tougher than plywood.

4. Infestations: Plywood is more prone to termite and borer infestations if proper techniques are not follows. On other hand, HDHMR is less prone to termite and borer infestations due to its pressing technique. There are fewer chances to attack by termites or other wood insects.

5. Water Resistance: Plywood is not water resistant to water as it has thin layers of wood which can be damage due its moisture. HDHMR offers high water resistance thus it can be use in highly moist areas and climate.

6. Maintenance: While plywood requires more maintenance, HDHMR has low maintenance which offers a smooth finish and higher density and uniformity.

7. Health Safety: Making of plywood releases VOCs (Volatile organic compound) and formaldehyde fume into the air. These are not safe to inhale and can be harmful to human health. HDHMR is totally free from hazardous materials. That means it's safe for both environment and homes.

Conclusion

On the basis of the study of the recent trends of use of luxurious furniture in present business world added more attractive atmosphere to the customer choices. Therefore manufacturer should go with present trends with quality, durability, stability and eco friendly nature with environment. Now HDHMR is innovation for all who wants the quality furniture and glossy look to their home. It is environment friendly product which saves the forest wood from cutting or being overused as it is made up combining fibre chips, forest wood waste through a homogeneous construction process. It is innovative practice which promotes sustainable use of wood. It saves wood from cutting down for manufacturing process as it present with its feature like durability, long-lasting and also promotes eco friendly nature toward environment. It brings superior quality product with innovation which helpful to environment.

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Role of Indian Youth in the Sustainable Development of the Nation

Dr. Ranjana Gosavi
Dhanwate National College
Nagpur

Dr. Rajkumargiri N. Gosavi
Dhanwate National College
Nagpur

"My hope of the future lies in the youths of character, intelligent, renouncing all for the service of others, and obedient – good to themselves and the country at large" -Swami Vivekananda

Abstract :

In an economy, young people are the most dynamic and adaptable group, and they are a key source of innovation and creativity. The role of young people in a country's progress and prosperity is a significant impacting on the sustainable development. This paper focuses on the role of youth in Sustainable Development of India.

Keywords : sustainable development, youth, population

Introduction :

Youth are the building blocks of any nation. Youth are the assest if trained and molded with rigorous training and practice. Youth is that wonderful time in life when energy is limitless, human creativity is at its best and the 'never say die' spirit is at its peak. Demographically, the India of today is at its youngest and the best. India with a large and young population has a great demographic advantage. The average age of the 125 billion -strong Indian population will be 29 years in 2020, even younger than China and the US. There will be a significant addition of about 63.5 million new entrants between 2011 and 2016, with a large number of young persons in the 20-35 age group. This is a great opportunity for India and the Indians. Taking advantage of such an opportunity is contingent upon progress on the human development front to fully reap the benefits of the demographic dividend. It is essential that the economy has the ability to support the increase in the labour force and the youth have the appropriate education, skills, health awareness and other enablers to productively contribute to the economy.

Today, the world is home to the biggest generation of the important drivers of global change and innovation i.e. the youth, contributing about 43% of the global population. A temper of the will, quality of imagination, the predominance of courage, and appetite for adventure make this enormous cohort a vibrant, constructive force which can address global issues and create a more just, equitable, and peaceful world .

The empowered youth from varied backgrounds like food to fashion to finance are the forerunners of assessment, awareness, action, and advocacy for sustainable development. They are the main stakeholders, policymakers, and powerful resources in handling responsibilities, revolutionizing fellow men, and a reagent for change.

Sustainable development is an overarching paradigm of the India. This concept was described by the 1987 Brundtland Commission Report as "development that meets the needs of the present without compromising the ability of future generations." Thus, it envisages a future agenda that equilibriums the four pillars i.e. social, economic, cultural, and environmental objectives.

India and the Youth

India has the world's maximum population of under-21s. With 356 million 10-24-year-olds, India is having the highest population of youth in the world. The current generation of Indian youth is eager to become involved in a wide range of actions that support long-term development. In order to bring about change in their communities and civilizations, young men and women are tasked with becoming complete agents of change. There is a problem, however, when it comes to focusing on youth in development strategies. It is possible to regard young people as agents of change who can help construct a greener today and a better environment for future generations by using their knowledge, sharp observation, and constant action.

The potential of this huge brigade can be realized if every segment contributes in his/her capacity to the fullest. Let's see how by making modest changes in the way we think and work, this much needed change can be brought in, and for India.

Education is the one stop solution to almost each problem in India. Education can reach the masses only when they are made aware of the benefits of education. India needs sustainable business models for providing education to the needy ones. Initiatives like Each One Teach One should be made mandatory for 6 months for all employees of the recognized Indian firms. We also need start-ups that improve sanitation in slums and rural areas. In this context, **technology start-ups** must focus on innovative products like thermo-electric stoves for cleaner and economical cooking as 40% of India still uses traditional stoves to cook food. Indian **youth as entrepreneurs** should venture into the recycling revolution taking cue from countries like Sweden, which recycles 99% of household waste and turns it into energy.

Youth as politiciansshould become the influencers in the way politics is apparent in India. From ensuring effective implementation of basic government schemes like MGNREGA, Rural electrification projects, PMGSY etc, passing of important legislatures like Women representation bill, Lokpal bill, Road safety bill to ensure appropriate spending of the public funds in their constituency; young politicians have a lot of onus on them to make a difference.

Youthas managersworking in CSR functions should analyze the impact of their CSR activities and to what extent is it bringing the change in the society. Top 20% of the Indian youth population, in terms of education and well-being, should be the ones driving the inventiveness for change in the rest 80% of the population.

The Government alone cannot take up the burden of refining basic infrastructure like opening up of educational institutes, hospitals, building roadways, power plants among others. Indian firms should be involved in this mission of making India a developed country. If each Indian MNC opens 1 educational institute and takes up the funding of 1 hospital with world class facilities, the change is not far away.

Corruption is the root cause of almost every problem in India. **Youth as civil servants** are accountable for executing developmental work at the ground level. If each block development officer makes sure that work execution is proper in her/his block, if each district collector, with the police force under him, ensures maintenance of law and order in his territory, if each public works department official is ensuring satisfactory redressed of complaints; cities and towns and villages will prosper at an unheralded pace.

Youth as academiciansconstitute of teachers, professors and researchers. India children today need proper sentizing towards their role in the society. Teachers should give moral and ethical education about respect for other gender, sticking to right values and conservation of nature. Ignorance, fear, prejudice and apathy, if left unchecked, become fertile ground for breeding hatred and extremism,which are the root causes of the world's ills. We are a multi-ethnic, multi-religious, multi-linguistic country and hence we are more vulnerable to these problems. Each student should be taught to value and respect the various ethnic identities of every community in India and regard them as assets to be proud of.

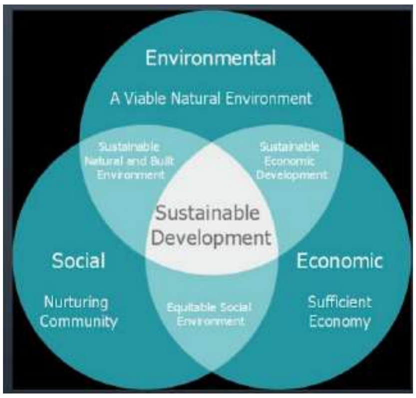
Health is wealth and the healthier a country's citizen are, greater will it be benefitted from their productive and efficient work. Average life expectancy of India is 66 years which is significantly less. We should learn from health initiatives (Symbiocare) by the Government and corporates in countries like Sweden (Average life expectancy of Sweden is 81 years). Today Sweden has around 350 companies and organizations representing the entire health care spectrum – from small start-ups, universities, county councils and global corporations, working with everything from biotech to medical technology, pharmaceuticals, and healthcare services.**Youth as sports persons** who have achieved glory for India at International championships must motivate others and help providing them with proper coaching and training facilities. Central sports authorities must make sure that all sports receive equal importance in funding and oversee the construction of world class stadiums in all the Indian states.

Youth Empowerment

The United Nations Human Settlements Program (UNCHS-Habitat) defines youth empowerment as "the circumstances and factors which enhance the development of citizenship and productiveness among young people as they move into adulthood. It is concerned with the adaptation of government structures and institutions to protect and deliver children's, youths and human rights, including the right to participation". The word 'empowerment' means giving power. The word "empowerment" has been known to be a very slippery concept within the development discourse . It has meant various . things to different people and constituencies and has covered such issues as good governance, legitimacy of governments, the transformation of economies to self-reliant endogenous human - centered development, a process enabling collective decisionmaking and collective action and popular participation. Precious youthfulness of the country if ignored and left untrained, unskillful, indiscipline it would be equally dangerous to destroy the nation.

Sustainable Development

According to RemigijusCiegis "although the essence of the concept of sustainable development is clear enough, the exact interpretation and definition of sustainable development has caused strong discussions It is possible that the terminology problemoccurs in the dual nature of the sustainable development concept, covering developmentas well as sustainability" Similarly Speeding stated that this was probably the reason for the emergence of a significant number of books, chapters, and articles containing words "sustainable" and "sustainability" in their titles yet providing no definitions of the concept. Different disciplines offer various definitions on sustainable development, mostly oriented towards separate sectors - e.g. environmental, economic, and social which make things more interdisciplinary and complex. In 1992, the World Bank described sustainable development with a laconic phrase "sustainable development is development that continues" (World Development Report, 1992).



In 1992, the Rio de Janeiro declaration on Environment and Development described sustainable development as long- term continuous development of the society aimed at satisfaction of humanity's need at present and in the future via rational usage and replenishment of natural resources, preserving the Earth for future generations (Rio Declaration on Environment and Development, 1992). Pearce, Markandya and Barbier provided a more generalized definition of sustainable development that includes the creation of a social and economic system that guarantees support for the following aims: increase in the real income, the improvement of the level of education, and the improvement in the populations' health and in the general quality of life." IE1CN, UNEP, and WWF emphasized that sustainable development; sustainable growth and sustainable consumption were used as equivalent concepts. However, in reality these concepts are not identical. Besides, the very term sustainable growth bears intrinsic contradiction: no physical unit can grow endlessly. Holdgate stated that development understands of the potential of resources. Sustainable development of renewable natural resources means taking into consideration the limits of the development process, even if those limits are changed by technologies. Sustainability of technology may be evaluated according to whether it increases productivity at the same time preserving environmental and other boundaries.

It is noteworthy that human needs are in the focus of attention, and thus the concept of sustainable development is very dynamic and ever evolving. Thus, sustainable development is not about a choice between environmental protection and social progress, but rather more about striving for economic and social development that would be compatible with environmental protection. The sustainable development concept implies a fusion of two imperatives: the right to develop (economically, socially, politically, and culturally) and the need to sustain the environment. In other words, all future development must be achieved in a sustainable -and equitable manner. Thus, the concept denotes a balance between sustainability and equitability: Sustainability brings environmental concepts into the development process, and equitability injects developmental matters into national and international environmental protection efforts.

The Role of Youth in Long-Term Development:

The Environment Program estimates that 30% of the world's population is under 30. People who want their country to raise in the long term need youth to be engaged in making decisions about environment and in implementing programmes. Young people are seen as potent agents of change. Corruption, bribery, and other social ills may be combated by them, and this can lead to beneficial social transformation. Students should use their education to benefit the nation as a whole. Activists must come from among the youth. The activities of young people may make a difference if they instill in them a feeling of urpose, value, and accomplishment. Researchers say next-generation leaders are vital to the sustainability process. Leaders can help people be more creative, come up with new ideas, and live more sustainably (Akerlund, 2000) (Calsyn and Kenny, 1977) (Steckler and Goodman, 1989). Those working in environmental sustainability increasingly see children and teenagers as a vital constituency, and they're encouraging them to become involved in the work. Special attention must be paid to the engagement of young people. The Youth engagement is essential in order to have a lasting influence on young people and their communities. Youth participation is both limitless and unavoidable in order to achieve long-term sustainability.

Conclusion :

Youth as responsible citizens are at the core of every role that needs to be played. Doctor, engineer, shopkeeper, farmer, gatekeeper, and each and every person employed in some or the other occupation should do his job conscientiously. The ecosystem has become most promising for the Indian youth in terms of opportunities and resources available. Never before were there this large a population of youth in India and never ever will there be this much potential to transform the face of India! This is the time of revolution and become an example for other emergent economies.

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Entrepreneurship And Regional / Rural Development

Dr. Rashmi .S.Datar
Assistant prof.: Punyashlok Ahilyadevi Holkar Solapur University, Solapur, Maharashtra.
e-mail: rashmi.sachin17@gmail.com,contact details: 9422805626/7276739455

Abstract.

Today we are going global. But the roots to globalization are deep rooted in villages. Rural area or villages are the pillars of any developmental process. India is a country with almost 70% of the people residing in villages and the whole economy is dependent on the effort taken by these 70% economy. Rural entrepreneurship can be considered one of the key factors to reduce poverty, migration, economic inequality, unemployment and develop rural areas and backward regions. Rural entrepreneurs play a key role in the overall development of national economy, particularly in the rural development. In other words, it can rightly be said that entrepreneurship can search its base in villages and that it can help to boost the economy, adding to employment generation, self-development. Education, entrepreneurship, physical infrastructure, and social infrastructure all are very important from the point of view of developing rural regions. Rural development also features its emphasis on locally produced economic development strategies. Entrepreneurship is an assignment taken by a person who is called entrepreneur who creates a new business, bearing most of the risks and enjoying most of the rewards.

Key words: Entrepreneurship, employment generation, development, rural.

Introduction

Today we are going global. But the roots to globalization are deep rooted in villages. Rural area or villages are the pillars of any developmental process. India is a country with almost 70% of the people residing in villages and the whole economy is dependent on the effort taken by these 70% economy. Rural entrepreneurship can be considered one of the key factors to reduce poverty, migration, economic inequality, unemployment and develop rural areas and backward regions. Rural entrepreneurs play a key role in the overall development of national economy, particularly in the rural development. In other words, it can rightly be said that entrepreneurship can search its base in villages and that it can help to boost the economy, adding to employment generation, self-development. Education, entrepreneurship, physical infrastructure, and social infrastructure all are very important from the point of view of developing rural regions. Rural development also features its emphasis on locally produced economic development strategies. Entrepreneurship is an assignment taken by a person who is called entrepreneur who creates a new business, bearing most of the risks and enjoying most of the rewards.

Before we look into the rural development in details it is first necessary to understand what is meant by the word entrepreneurship?

The word entrepreneur is defined as a person who has the ability and desire to establish, administer and succeed in a startup venture along with risk entitled to it, to make profits. The best example of entrepreneurship is commencing of a new business or a new startup. The entrepreneurs are often innovators, who bring new ideas in the market by replacing old with a new invention.

It can be classified into various categories ranging from small or home business to multinational companies. The entrepreneur makes profit by effectively using a combination of land, natural resources, work force and capital.

Rural development is the process of improving the quality of life and economic well-being of people living in villages, isolated from the cities. Strong education base, changes in social and rural infrastructure, boost to entrepreneurship, are some of the key factors which add to the improvement of rural economy. Rural development also aims at economic and social upliftment of the people in rural area. this not only includes the development part but also involves improving quality of life of the people residing in rural area. The life of the people residing in rural area is much more miserable than the that of the people in urban areas. As we are aware that 70% of the population of our country reside

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in villages. If we are thinking of the progress of the country as a whole, we must take measures to improve the village economy. Entrepreneurship is the answer to this issue. We should develop the village economy in such a way that we should be job givers rather than job givers. Today agriculture is the major source of livelihood in the village. A large population depends upon agriculture for their income. If rural development is to be achieved we have to strive hard for inculcating entrepreneurship in villages. This will help to bring them in main streamline with urban area.

The key issues in rural development involves improvement in basic infrastructure facilities such as transportation, electricity, marketing etc. It also includes development of health facilities, productive resources, human resources, etc. It is well said that if we want to go for development of the nation we should start from roots ie villages. According to mahatma Gandhiji India lives in villages and the true spirit comes from villages.

The word entrepreneurship comes from the word “Entreprendre” and German word “Unternehmen” which means to “Undertake”. Entrepreneur is a person who undertakes the responsibility to develop new ventures and meet the upcoming dangers in a creative manner. Entrepreneurship plays an important role in the development of rural areas. The development and growth of rural areas help in creating self-employment, which is helpful in diffusing industrial and economic activities on a wider scale and making determined utilization of the local labor as well as locally available raw materials. Now-a-days Rural Entrepreneurship has become the big prospect for those people who have shifted to urban areas from rural or semi-urban areas. Entrepreneurship at rural level is a key to overall development. If entrepreneurship is increased at rural level, it can give a better standard of living to the people residing in villages. There are few reasons for increasing rural development at rural or regional level. Following are some of them: -

- Rural development is a key factor to reduce poverty and create wealth and employment opportunities.
- Entrepreneurs and small businesses play in driving local and national economies.
- Structure and composition of rural economies are essentially composed of small business units, which are responsible for most of the job growth and the innovation.
- A change is expected in the traditional approaches of recruitment and retention as it is being observed that former has been unsuccessful in having a good workforce.

The majority of the population in India lives in villages. The economic development of a country largely depends on the progress of rural areas and the standard of living of people living in villages. Village or rural industries play an important role in the national economy, particularly in the rural or regional development. Entrepreneurship at Rural level is based on motivating local entrepreneurial talent and the succeeding growth of indigenous enterprises. It recognizes opportunity in the rural areas and accelerates a unique combination of resources either inside or outside of agriculture. Rural entrepreneurship brings an commercial value to the rural sector by creating new tools of production, new markets, new products and generate employment opportunities thereby ensuring continuous rural development.

If rural or regional development is to be sought there are some industries which need to be given a boost. These are:

1. **Agro based industry:** In these industries we can have either direct sales of agricultural products or processing of agricultural products such as jaggery, pickles, sugar industries, oil processing from oil seeds, dairy products, fruit juice, spices, jams and jelly, sauces and ketchups etc.
2. **Forest Based Industries:** These industries include products made from wood or bamboo, coir industry, beedi making from leaves, honey making.
3. **Handicrafts industry:** These include making of wooden or bamboo handicrafts that are local to that area, traditional decorative products, toys and all other forms of handicrafts typical to the region.
4. **Textile industry:** Again, with agri base it includes lot more employment opportunities in textile sector. These include weaving, stitching, hand and machine embroidery, fabric painting.

Importance of Entrepreneurship in regional/rural development.

Entrepreneurship is the self-motivated process of creating wealth and innovating things of worth that have a bearing on the welfare of an entrepreneur. The importance of Entrepreneurship can be understood from the following:

1. Employment Opportunities: Once the industries are setup it needs proper workforce to run these industries. Thus, entrepreneurship creates employment opportunities reducing the unemployment level

2. Reduction in poverty: - Another benefit which goes hand in hand with employment is reduction in poverty. If people are having jobs, then poverty will be reduced.

3. Balanced regional development: Rural entrepreneurship controls the concentration of industry in urban areas and thereby promotes balanced regional development in the economy.

4. Improved standard of living: Entrepreneurship will also increase the literacy rate of rural people. Their education and self-employment will prosper the community, thus improving their standard of living.

5. Optimum utilization of available resources: Rural industries help in the maximum utilization of local resources like raw materials and labor for productive purposes and thus increase productivity. Efficient and effective use of limited resources by the entrepreneurs leads to overall economic development of a region.

6. Increased foreign reserves: Yet another benefit of entrepreneurship is it helps to increase foreign reserve.

7. Increased skill-based employment opportunities: Today the government is stressing more on skill education. a talent hunt at rural level and identification of skills can create more employment avenues.

8. Decrease in regional disparities: Equitable distribution of wealth will reduce regional disparities.

Obstacles in Entrepreneurship to ensure regional and rural development

Developing entrepreneurship especially in rural region is not so easy. It is embarrassed by several problems. Some of the difficulties faced by entrepreneurs in villages are as follows:

- **Lack of investment**: Money is the lifeblood of the business venture. Most of the entrepreneurs at villages are mainly finding it difficult to raise the finance for their businesses. Non availability of adequate collateral security often ruins the chances of rural youth in obtaining adequate funds in time to set up their own venture. Because of this reason , the businesspersons are forced to take money on credit from sahukars who charge excessive rates of interest.
- **Lack of knowledge**: Young people in the rural areas do not possess adequate knowledge about entrepreneurship and hence are bit hesitant to start the business. Secondly if the youth is educated he will rush towards urban area in search of job rather than going in for business.
- **Lack of technical knowledge**: The education system in India has many lacunas as a result of which people from rural lack managerial, professional, technical knowledge which is an obstacle in developing the spirit of enterprise. Again, people are reluctant to come forward to establish self-employment units.
- **Absence of risk bearing capacity:** Most of the rural people in India lack risk bearing ability. Apart from risk bearing capacity they also lack creative thinking, self-employment. They are more interested in wage employment. These are few reasons which have restricted the growth of self-employment in rural area.
- **Lack of infrastructural facilities:** Rural areas are categorized by deprived infrastructural facilities viz, roads, water, market, electricity, street lighting, road transport, storage and communication etc. which make various industrial activities go slow or stop completely.
- **Hostile social, cultural and industrial environment** Social evils, caste systems, religious superstitions, particularly in the villages, hinder the development of adventurous spirit. Lack of skill and expertise in laborer's, their inclination to migrate to cities and consumer's preference towards branded products create many problems for new entrepreneurs.
- **Lack of proper communication:** The absence of effective communication and access to the right information related to current trends in market makes it difficult for rural entrepreneurs to understand market inclinations and policies followed by the government on industrialization.

- **Absence of skilled labours:** In rural areas, skilled labours cannot be found easily by the entrepreneurs. Highly skilled people desire to work in big cities due to high salary than rural areas.
- **Low products quality** People prefer quality product and this makes all the difference. Absence of technology and quality raw material refrain the entrepreneur from giving quality product and hence go into losses.
- **Fear to invest in the business:** Rural entrepreneurs have low risk bearing ability due to lack of financial resources and external support. So, they restrict to invest in their businesses in rural areas.
- **Tough Competition** Rural entrepreneurs face hard-hitting competition from urban entrepreneurs and larger scale organizations. They cannot compete with the urban entrepreneurs due to lack of standardization and branding of the products.

Suggestion

Rural entrepreneurship is the need of the time. If we want that the economy of our country should grow then measures should be taken for rural or regional development. Following are some suggestions which will encourage entrepreneurship at rural level.

1. Special financial assistance
2. timely financial assistance
3. Special training and development programs
4. Stress on modernization of technology
5. Proper infrastructural facilities
6. Setting up of industrial cooperatives

Conclusion: Rural industries play vital role in the national economy, particularly in the rural economy. The entrepreneur is the key to the creation of new enterprises that energize the economy and revitalize the established enterprises that make up the economic structure. Therefore, Rural Entrepreneurship is significant not only from the point of view of generating employment prospects in the rural areas with low capital cost and raising the real income of the people, but also its involvement in the development of agriculture and urban industries. Without rural industrialization, it would be very difficult to overcome the problem of unemployment in rural areas. Rural entrepreneurship can be measured one of the keys to reduce poverty, migration, economic disparity, unemployment and develop rural areas and backward regions.

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Impact Of Advertisement And Prices On Customer Behavior Relating To Small Cars

Ratnesh Ramesh Trivedi
1.Research Scholar
Dr. Manish B. Vyas
2.Research Supervisor, Shri Nagpur Gujarati Mandal' Vmv Commerce, Jmt Arts & Jjp Science College (NAAC Re accredited B+) Email: vmvnagpur@gmail.com,Website: http://www.vmvnagpur.org

1. Abstract

Marketing is an imaginative function in business organizations to invite the customers and make them incline to buy the products. It does not mean selling but fostering the sales even for products like vehicles. The dealers of the Maruti Udyog Ltd., at Nagpur, selling exclusive products adopt several methods in the fields of advertising and pricing to foster sales performance. In regard to advertising function, the traditional modes like hoardings, insertion in the print media and even also audio-visual systems, are not as effective as expected. There exists no positive correlation between the expenses on advertisements and the sale performance. The same fact needs to be reiterated in the light of the effective as usually assumed. Many customers feel that advertisements are not as effective as usually assumed. They are of the opinion that advertisements, without legal sanctity, do not provide authentic and necessary information.This paper perceptibly brings home the fact that most customers, howsoever rich and knowledgeable, are equally price sensitive. They reject the deal if the dealers overlook the economic and commercial aspects of the sale. The dealers must attempt to bridge the gap between the quoted and actual prices charged to customers.

2. Introduction

It is no denying a fact that the two most critical factors influencing customer behavior are the market price of a product and advertisement. Customer are highly sensitive to the price and they acutely match it with their propensity to demand for the product whether it is a toy or a car. Thus, their sensitivity to product largely depends upon the propensity, or the degree of necessity, at any point in time. However, the impact of advertisement on customer behavior is visible but not quantifiable. Its impact is subjective and the matter of assumption. Moreover, the annual expenses on advertise cannot be meaningfully linked to the volume or value of annual sales. Further, different modes, designs patterns and themes are used simultaneously, as a result of which the impact cannot be judiciously worked out on earnster. Today, e-advertisements are provedmore influencing being more personal. In these circumstances, measurement of the impact on behavior of customers is prone to infirmities N.S. Wadhhwani, (1) remarked with these words. "Advertisements are thematic process of providing necessary information that reveals less than what it conceals and hence can hardly be regarded as the conclusive and authentic evidence of impact". The impact of car-prices is patently seen on the behavior of the customers being individual buyers. The fact to be underlined is that normally the instituted or corporate buyers are observed to be less sensitive towards the price of cars. Their need-based requirement forvehicles is absolutely unconcerned once the agreement to purchase was executed.Despite above oddities, a cursory attempt is made by collecting the data from the annual reports of the Maruti Udyog Ltd., for the period of ten years ending March 2022.

Table 1: Trends in Advertisement expenses and sales

YEARS	AE / TE	INDEX NO. SALES
2012-13	3.59	105
2013-14	3.11	117
2014-15	3.12	135

2015-16	3.35	152
2016-17	2.16	177
2017-18	3.27	195
2018-19	3.01	172
2019-20	3.57	189
2020-21	3.45	208
2021-22	3.31	237
	AE / TE : Advertisement Expenses as percentage of Total Expenses	

Sources: Annual Reports of the Maruti Udyog Ltd
X: Advertisement Expenses as percentage of total expenses
Y: Index numbers annual sales of Maruti Suzuki cars; base 2010-11=100

Observations:

[a] The annual expenses on advertisement by the Maruti Udyog Company Ltd., as expressed in terms of the percentage of its total annual expenses was merely 3.5 percent in the year 2012-13 and 3.31 percent after the expiry of ten years i.e. 2021-22;

[b] The ten year average percentage of advertisement expenses was 3.01 percent with the standard deviation of 1.25, thereby indicating that these with the total annual expenses;

[c] The annual sales of non-commercial motor car doubled during the decade under review despite heavy and deep competition with international manufacturing companies

Thus, it may concluded that the expenses on advertisement did not prop up the sales and the therefore, the expenses were kept restricted.

Customers 'demand' for product largely depends upon the price and hence their sensitivity not of course the elasticity of demand, with regard to prices can rarely be ignored. Customer's sensitivity to the prices are eventually regulated first by their propensity to demand or need. The question of sensitivity does not seem to be relevant in case of institutional or organizational customers, as mentioned earlier. This apart, the availability of alternative products or complementary means often cause to push off their decisions. In short, the price sensitivity of individual customers is subject to their propensity that ultimately determined by the:

- Degree of necessity
- Capacity to pay
- Standard of living and
- Social status

The buying decision of the customer that indictor his behavior is the crucial factor that often challenges the making personnel. They keenly look for the most significant factor affecting the buying decisions of the customers. Dr.Sitaramaiha [2] puts up the problem in the clearest word. "Every clever customer stays cool, cold and calm to judge and measure the final benefit before making a buying decision".

[3] Objectives

Since it is double to study in-depth all the aspects or dimensions of the impact of prices and advertisement on the behavior of the customers buying the small cars manufactured by the Maruti Udyog Ltd., the specific objectives as finally decided to:

- Presumptively assess the impact of advertisement in buying a car from the Maruti Udyog and
- Critically examine customer behavior with respect to prices.

[4] Hypothesis

The aforesaid objectives are envisaged on the Hypothesis. H1 that the advertisement by the Maruti Udyog Ltd., Hoardings, Newspapers, and T.V. channels create no visible impact on the decisions of buying a car. The Hypothesis H2 may to put down in these words that "price sensitivity is not the significant factor in buying a car from the Maruti Udyog Ltd. Both are related to the marketing functions for the purpose of attracting customers.

[5] Research Methodology

This study revolves round the customers seeming inclined to purchase a small vehicle only from the Maruti Udyog Ltd not more than 126 perspective customers were randomly selected from the local centre of the company in Nagpur. Their profiles are presented in Table 2. In selection of customers on random basis the essential primary facts that into consideration included;

- That he/she must be resident of Nagpur
- That he/she must be working remuneratively either as self-employed or an employees;
- That he/she must be buying a car for personal use only not business or hiring out; and
- That he/she must have license and would be the owner of the vehicle.

[6] Research Tools and Techniques

While the present survey is designed to analyze the impact of advertisements issued by the Maruti Udyog Ltd. Nagpur Division through any of the modes the following close end questions were put to them for collecting the information

2. Do you come across any advertisement since last one year --- Yes/No
3. Did that 'ad' improved your cognition about the car --- Yes/No
4. Was your decision to buy / not to buy car based on the "Ad"---Yes/No,

Price Sensitivity

Individual customers as against corporate customer have always been patently sensitive to every tactics and strategy adopted by the company for the purpose manipulating the final price of the different brands of cars. These customers rarely agree to any terms of the company that offsets its loss in the price. In this context the normally face following unfair practices to secure the right price by hook or by crook. The individual customers reject the order and also delivery of car for any of the following unfair tactics, and thereby showing their price-sensitivity.

- Considerable gap between quoted prices and delivery prices;
- Compulsory allocation of undesirable parts, spares, fixtures etc
- Declining the delivery of specified items/parts
- Offering delivery at different locations
- Delivering the chapter parts to maintain the price

Data Collection

Appropriate data was collected from all the 126 selected individual customers intending to buy the Maruti products especially 'Suzuki' G.C by the pre-tested small questionnaire. This primary data down was analyzed and its observations will be discussed in next paragraph.

[7]Limitations

-This study is of limited scope due to the extremely limited personal resources its concerns with;
-Small sample of 126 respondents customers;
-The period of one year, i.e. 2021-22
-The residents of people living in the city of Nagpur only;
-The study of impacts of advertisements on customers;
-The impact of price sensitivity.

Sample Profile

The profile of selected sample customers is given in the following table 2. It demonstrates that the small sample is representative because it includes various sections of the society.

TABLE 2 DIFFERENT PROFILES OF SELECTED CUSTOMERS

S.NO.	PROFILE	NOC
1	GENDERWISE:	
	I. MALE	72
	II. FEMALE	54

		126
2	INCOME WISE(Rs. In lakhs I. 5.0 - 60 ii. 6.1 - 7.5 iii. 7.6 - 10 iv. 11 - Above	 45 36 27 18
		126
3	CASTE WISE i. General ii. Schedule Caste iii Schedule Tribe iv. OBC	 62 35 26 3
		126
4	OCCUPATION WISE I. Executives ii. Professionals iii Self employed	 34 62 26
		122

NOC: NUMBER OF CUSTOMERS

[8]Data Analysis

Impact of Advertisement

As mentioned earlier, the impact of advertisement on customers in the markets of non-commercial vehicle does not appear to be significant because

- In this markets majority of customers knowledge, well- experienced and well to do having good exposure;
- They know that no advertisement discloses any meaningful information about the product, its benefits, operational condition and technical features,
- They hold the view that advertisement, whatever may be its mode conceals more than what it reveals; and
- Once singular insertion in news papers, or singular hoardings at a particular place never create indelible impression on the minds of people.

The necessary and relevant information relating to the impact of advertisement on customers while making decision was collected by putting a few questions to the selected respondents. Their responses and views were summarized and tabulated accordingly.

TABLE 3 IMPACT OF ADVERTISEMENT FOR THE MARUTI CARS IN NAGPUR

S.NO.	QUESTIONS	NO. OF RESPONDENT		
		YES	NO	TOTAL
1	Do you come across advertisement for Maruti car	5	121	126
2	Does any 'Ad' improve your knowledge of the cars?	15	111	126
3	Does your decision depends upon certain "Ads"	-	126	126
4	Do you believe that any "Ads" conceals more than it reveals?	119	7	126

5	Do you refer to any "Ads" while entering into buying contracts?	8	118	126

Observations:

1. Since the insertions in the local newspapers were limited, most of the respondents were utterly ignorant about them,
2. Majority of the respondents accepted that the no advertisement ways useful in improving their product knowledge;
3. In making the decision whether to buy a Maruti Car or not, no advertisement were taken into consideration because their authenticity was never guaranteed;
4. More than 95 percent of the respondents agreed that the advertisements concealed more than revealed; and
5. Advertisements relating to the Maruti cars never furnished any useful, relevant and up to date commercial or technical information to the customers. This view was rampant as may be observed from the above Table3.

To sum up, the fact underlined is that the advertisements for the Maruti cars were almost negligible and therefore they are ignored in the decision making process by the customers. Advertisements create no impact.

Price Sensitivity

In order to finally obtain the requisite price of the vehicle, the dealers adopt several tactics. Cautious customers being sensitive to the prices of reject the deals. The data collected from the selected customers is presented in table 4, which clearly throws light upon the causes of price sensitivity.

TABLE 4 CAUSES BEHIND THE PRICE SENSITIVITY OF CUSTOMERS

S.NO.	CAUSES	NO. OF CUSTOMERS	
		ACCEPTED	REJECTED
1	Wide gap between quoted & actual price	4	52
2	Compulsory allotment unwanted parts	2	33
3	Non- Delivery of important accessories	3	10
4	Delivery of car at different location	-	6
5	Delivery of cheap parts	2	14
	TOTAL	11	115

Observations

The price sensitive cautious customers are now highly inclined to finally reject the deal whenever the dealers adopted unfair methods for retaining the prices. The above Table 4 reveals the following facts.

[i] Not less than115 out of 126 selected customers i.e. about 92.3 percent of the respondents rejected the deal outright due to the several reasons relating to the adjustment of the final prices;

[ii] Majority of the customers i.e. about 52 out of 115 respondents cancelled the deal because the amount of gap between the price quoted at the time of agreement and the actual price required to be paid was considerably wide.

[iii] In order to retain their predetermined price, he dealers compel the customers to take the delivery of unwanted parts and accessories no less than 30 percent of the sample respondent customers cancelled their deal despite suffering the losses;

[iv] At times, the dealers either deliver cheaper and non-confronted accessories or offer the price sensitive to the prices did not accept the delivery.

Thus, the price sensitivity of customers compel them to reject the deal because the most of the dealers recklessly attempt to adopt unfair practices for maintenance of the pre determined prices of the vehicles.

[9]Conclusions

This paper evidently leads to conclude that :

a. The non commercial vehicles which are now being manufactured by many companies do not now remain in the producers market and hence the companies like the Maruti Udyog, Tata Motors etc; face severe competition to survive and sustain. They have been adopting several strategies for advertising to faster sales, yet these advertisements have no significant impact on the customers. These advertisement provide attractive information out in the actual deal they have been ignored making the customers indecisive.

b. Most customers are of the opinion that the advertisements do not provide authentic and essential information deemed necessary for decision making. Such opinions or understanding certainly bring down their effectiveness. They have no legal sanction.

c. A large number of customers, despite enjoying comfortable facilities are immensely sensitive to the price the vehicles they intend buying. They are not blind towards the prices. It was found that the dealers recklessly adopt unfair methods and tactics to finally secure their determined price. The customers being knowledgeable and considerate are highly price sensitive. Most of them reject the deal outright. Their price sensitivity has been sharpening due to the glut of vehicles in the market and acquisition of commercial as well as technical knowledge about the vehicles.

d. On the basis of variances it is concluded that the hypothesis I and II are extremely confirmed and substantially conformed.

[10] Suggestions

This limited and miniature research assessment has a little authority and capability to make astounding recommendations or suggestions. However, the following suggestions may be worth considering.

- Realizing the price sensitivity of customers, the dealers have to adopt fair practices in order to minimize the widening gap between the quoted and actual price to be paid on delivery; and
- The marketing personal have to increasingly shift to the e-advertisement in the present era of digitalization.

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A Study Of Environmental Protection And Sustainable Development In India

Dr. Rekha M. Gulhane

Shri Niketan Arts Commerce College, Nagpur

Abstract:

In the last few decades, many experts have drawn attention to the close relationship between the environment and development. In the indiscriminate race for industrial development, there has been a massive degradation of the environment and widespread destruction of the natural resources available to mankind. Now the emphasis is on 'environmental protection'. According to the World Development Report 1992, environmental problems can hinder the achievement of development goals in two ways: "First, the quality of the environment – water that is free from pollution and air that is clean is part of the improvement of well-being itself." which is the goal of development. If along with increasing income, conditions harmful to health and a good life are created, then it cannot be considered development. Damage to the environment will hurt productivity in the future. Today, huge wastage of resources in the race to increase the level of income, due to which the fertility of the land is rapidly decreasing, water resource reserves are depleting and the eco-environment is getting degraded rapidly, the income generated in the future will be very difficult. Can have a very bad effect on the capacity. Therefore, it is necessary to include environmental protection in any comprehensive program of industrial development. In this context, economists now talk about sustainable development. In this research paper, environmental protection and sustainable development in India have been studied.

Keywords: Environmental Protection, Sustainable Development, Industrial Development, Degradation, Economic Growth

Introduction:

Sustainable development was first mentioned in 1980 by the International Union for the Conservation of Nature and Natural Resources when presenting a world conservation strategy. In the 1987 Brundtland Report Our Common Future, sustainable development was defined as meeting the needs and aspirations of people in the present without compromising the ability of future generations to meet their own needs. Sustainable development has an important role and place in the development literature. Sustainable development is the focus of debate and dialogue among development experts, environmentalists, and national leaders from both developed and developing countries. The United Nations and its agencies, many international institutions and commissions, and world leaders understand the importance of sustainable development. They are of decisive attitudes, which are depleting the earth's resources to meet present needs, which is potentially disastrous for future generations. Do future generations, and not just current generations, need those Earth resources? and what they will produce. Overfarming, destruction of forests, and filling of wetlands are all being driven by population explosion. This is ultimately damaging the ability of so-called renewable resources to renew themselves. They cannot continue to produce further. Beyond a certain level, merely striving to get more in the present will reduce production for the future.

Sustainable development is possible only if the environment is protected and improved. Moreover, any development is an increase in it. This means that the natural capital path over time is sustainable only if total capital assets either remain constant or the stock of natural capital must at least remain constant; It should not decline. To be more precise, there mustn't be negative changes in the quality of natural resources and the environment. The basic feeling is that further degradation of the environment should not happen. If it improves then it is a welcome change. The simple logic behind sustainable development is that the resource base of any country and its sources of water, air, and land are the joint heritage of the present and future generations of that country. Destruction of this heritage for short-term gains means violating the interests of future generations. Therefore it is unfair. That's why the government should make arrangements for environmental accounting in its policymaking. This would mean that the conservation or depletion of valuable environmental resources should also be taken into account when estimating economic growth and human well-being.

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Alternatively, policymakers can set a target that no net degradation of environmental assets will be allowed. In other words, if an environmental resource is damaged or depleted in one area, a resource of equal or greater value will be created in another area.

Regarding governance to ensure sustainable development, it can be said that our children and future generations will inherit an earth that is only the bare minimum - and no worse than ours today. It is perhaps one of the noblest and highest aspirations that we can build ourselves up as human beings. Looking at the changes taking place around the world, it is widely felt that the kind of world we will bequeath to our children and grandchildren cannot be better as a result of environmental degradation, which is due to the political decisions made today. and result from economic decisions. It is a matter of grave concern that those who are enjoying the benefits of economic development today may be causing immense harm to future generations by harming and destroying natural resources and polluting the earth's environment.

Sustainable development was a major focus of the United Nations Conference on Environment and Development held in Brazil in June 1992. Achieving sustainable development on a global scale is likely to prove to be one of the greatest challenges to the world community given the increasing population and rising levels of per capita consumption. As the World Commission on Environment and Development observed, efforts are being made to achieve sustainable development amid additional pressures from global challenges such as "climate change, ozone depletion, and species loss". The continued build-up of greenhouse gases, ozone depletion by chlorofluorocarbons, and the continuation of species loss through habitat degradation affect developing countries no less than Western industrialized states. Ongoing excess use of energy adds to these difficulties, as well as a rapidly aging global population. These problems have increased so much that people who have been driven out of their land due to environmental crises have been called 'environmental refugees'. The term has been coined to describe people deprived of a homeland.

The need to move beyond sustainable economic development to sustainable human development is amply demonstrated by a new method of measuring national wealth the World Bank. In this method, after studying 192 countries, the World Bank found that the share of physical capital in total wealth is only 16 percent and the share of natural capital is 20 percent. In contrast, human capital accounts for 64 percent. Proponents of sustainable development argue that it provides a context for improving overall sustainability, where leading green growth is achievable. Inclusive green development is the way to sustainable development. It is the only way to address the rapid growth needed to bring developing countries to the level of prosperity to which they aspire, meet the needs of the more than 1 billion people still living in poverty, and meet the global environmental imperatives.

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

1) To study the relationship between environment and economic development.
2) To understand the need for environmental protection for sustainable development.
3) To find out what efforts are being made to protect the environment in India.

Environmental Protection and Sustainable Development in India:

As a result of human activities, and especially due to the rapid progress of industrialization, the environment is being badly damaged all over the world. Most of the damage is permanent and cannot be repaired. This is the reason why many questions are now being raised regarding the sustainability of indiscriminate economic progress. Although it is not possible to make quantitative and monetary estimates of environmental degradation and degradation, such estimates have been prepared for some countries in the last few years. of Select Environmental Challenges which was published in June 2013. The report estimated that the damage caused to the environment in India was Rs 3.75 lakh crore in 2009, which is equal to 5.7 percent of the GDP.

In the present global scenario, man has become so blind in the pursuit of materialism that natural resources are in danger. These natural resources are not intact. Therefore, due to their exploitation, the arrival of serious natural calamities and the crisis of resources for future generations has arisen. In such a situation, the attention of the global community turned towards environmental protection and sustainable development. In other words, if environmental protection is the means, then 'sustainable development' is the end. Sustainable development can be achieved only by conserving this natural wealth. Environmental protection refers to the surroundings around the earth in which all living beings including flora, fauna, and human beings, and their related physical premises. Due to internal and external activities on this cover, a crisis has started looming. Realizing the seriousness of the crisis, the global community has intended to protect it in its conferences. Since the protection of the environment is in such a way that there is no crisis for the future generation even after its exploitation, in this sense, the concept of sustainable development has emerged here.

In India, the basis of economic growth is also sustainable development based on environmental protection, which India has also declared in global conferences. The basis of the Indian economy is still agriculture. Agriculture is important not only in terms of its share of gross domestic product but also in terms of employment and labor force. Most of western India is becoming barren due to mostly use of HYV seeds and new technology-based chemical fertilizers to boost agricultural production. Due to the construction of new water projects and big dams on the rivers, the situation of drought and flooding have been rising in some places. The environment is being neglected in the development of industries and manufacturing sectors. Forests are being cut for new residential areas and business establishments. All these human activities are continuing unabated in India as well.

Since economic growth and development cannot be denied. Human culture has been developing in every era and environment, but not at the cost of the environment. Today's human culture is destroying nature blindly in the era of materialism. Nature itself cannot tolerate human interference for long. Every day the whole of India is facing natural calamities which have caused economic loss as well as loss of life and property. Therefore, today it has become necessary to move towards development while preserving the environment, such a development which continues till the future generation without any crisis. For this, like the global community, India is also serious. Keeping in view the exploitation of energy, instead of traditional energy, emphasis is being laid on alternative energy. Industry – A well-planned system has been developed for the construction of factories and disposal of residual materials. Flood and their impending crisis are also being kept in mind for the river project. In this sequence, along with saving water, the plan of Ganga cleaning is also a useful program for environmental protection so that the concept of sustainable development can be achieved. In this way, there is an unbreakable relationship between environmental protection and sustainable development, so resources should be used in such a way that future generations will also benefit. This can also increase the rate of economic growth. Like the global community, the Government of India is also very serious about this issue.

India has also faced natural calamities like floods, landslides, cyclones, storms, etc. and the damage caused by these is not included in the figures expressed above. According to the report, during 1953-2009, India suffered an average loss of Rs 15,000 crore per year, at 2009 prices, as a result of natural disasters. In this context, this statement of Jean Dreze and Amartya Sen is important: "We need to think seriously about the neglect of the environment in India and the consequences of that neglect because the livelihood of the people is being affected by the pollution of the economy." Rapid economic progress in recent years has resulted in rampant environmental plunder. Groundwater has been extracted carelessly in large quantities, which has resulted in waterlogging in many areas. There has been a huge decline in the water level of the land and the big and beautiful rivers have now become small dirty drains. Environmental protection and development are often thought of as separate, even at times, contradictory to each other. But the truth is that without bringing these together, it is very difficult to face the current environmental and economic challenges. It is very rarely seen that the potential environmental aspects of developmental projects are considered with sufficient sensitivity before they are approved. Environmental impact assessment has been adopted in India only in the year 2006. Also, National Green Tribunal and Compensatory Afforestation Fund Management and Planning Authority are in existence. Despite this, developmental projects are being passed with a one-sided approach.

The National Green Tribunal has been constituted in the year 2010 under the National Green Tribunal Act, 2010. It is a specialized body equipped with the necessary expertise to resolve environmental disputes involving multi-disciplinary problems. This Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908 but is guided by the principles of natural justice. It was established to deal effectively and expeditiously with the enforcement of any legal right relating to the environment and matters relating to environmental protection and conservation of forests and other natural resources, including matters connected therewith or connected therewith, and providing relief and compensation for loss of persons and property. done for settlement. In different cities of India, where the problem of environmental pollution is continuously increasing, indiscriminate cutting of trees in the name of developmental activity seems to be a contradictory step. The truth is that without a clean environment, the concept of sustainable development is dishonest. Trees are a primary component for proper development. Trees are the link that serves to connect the physical world and the natural world. It is very important for carbon sequestration, the production of solar energy, and providing a variety of materials for the physical world, as well as for the food chain and biodiversity. Therefore, for sustainable development, along with other components of the environment, the conservation of trees is also inevitable.

Conclusion:

Economic development is very essential for the progress of a country. A country is considered developed only when it can provide sufficient employment to its citizens so that its residents can get rid of poverty and lead a good life. This type of development reduces inequality in income. The more a country makes economic progress, the more its revenue tax increases and the government's expenditure on unemployment and poverty-related subsidy schemes decreases to the same extent, and the government spends its revenue on other important areas and activities. can spend for Increasing urbanization has forced the expansion of schools, colleges, hospitals, and other basic needs. These growing needs and aspirations for growth have certainly thrown up several challenges. The biggest challenge in this is to establish a balance between environment and development which has been successfully achieved as a result of effective compliance with government policies, coordination of government agencies, the spirit of conservation, giving due importance to the environment in the orientation of projects, and rational use of technologies. May go. If environmental aspects are seriously considered while planning in urban planning, then the damage caused during development can be reduced.

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How Ai Will Help In Nep-2020

Mrs. Reshma Amit Channe
Assistant Professor MCA Dept.VMV Commerce , JMT Arts & JJP Science College, Nagpur
Mobile No – 8180074399 ,E-Mail – r.reshma24@rediffmail.com

Abstract

Education is very important for the development of any nation. Because it helps people learn about the world around them and how to live their lives properly. A new education policy, called the 2020 Education Policy, was introduced by the Government of India. This policy will change the way of education is conducted in India. The policy lays emphasis on all aspects of education to bring about change and development in the Indian education system. The aim of the study was to find out how aspects such as arts, commerce, science and technology have been emphasized and how these aspects can be used in the new education policy.

(1) How AI can be used to improve the quality of higher education in India through NEP 2020. (2) To examine the pros and cons of including AI in higher education in India in NEP 2020.

This paper is a study on how artificial intelligence can be used to implement the new education policy 2020. This study uses secondary data collected from websites, publications and other reliable sources.

Keywords : Artificial Intelligence , New education policy, Quality education

Introduction

Human potential is realized through education, which in turn promotes social equity, justice, and national development. Provide global access to quality education is the key factor of India's continued growth. Universal access to quality education must be provided if India wants to progress continuously. Higher education is the best way to develop and nurture the rich talent and resources of our country for the good of the individual, the society, the country, and the world. India will have the most young people in the world over the next 10 years ,The future of our country depends on how much high quality education opportunities we provide them.

Quality education development is included in Sustainable Development Goal (SDG4) which is adopted by India in 2015.It aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." by 2030

The world is continuously rapid changes in the knowledge landscape. Many advancements in science and technology, including the big data, machine learning, and artificial intelligence.

Machines may replace many low-skilled occupations globally, necessitating the need for a competent workforce, notably in the fields of mathematics, computer science, and data science.

As the nation's resources deplete, the impact of natural disasters increases, and the rising emergence of epidemics and pandemics necessitates collaborative resources in infectious disease and vaccine development, the need for multidisciplinary higher education will increase. India is progressing both as a developing country and becoming one of the three largest economies in the world.

In fact, with the rapidly changing employment landscape and world ecosystem, it is becoming increasingly more essential that teens now not only learn, but more importantly learn how to learn. Thus education should move towards less content, more emphasis should be given to practical rather than theoretical knowledge, emphasis should be placed on how to think logically and how to use it to solve problems, innovative and multi-disciplinary education, in changing fields. The emphasis should be on how to introduce, adapt and absorb new material.

The methodology of education or teaching strategy should evolve to make extra experiential, comprehensive, integrated, research-based, investigative, student-focused, interactive, versatile, and enjoyable. The curriculum should develop all aspects and abilities of students in addition to basic arts, crafts, humanities, sports, fitness, language, literature, culture and values, science, mathematics, and technology; that will make education more useful for the learner. Education should aim to cultivate moral and ethical values in learners, promoting reasoning, kindness, and empathy, while also preparing them for productive and meaningful employment.

There is a significant relationship between technology and education. The way people learn has changed as a result of technology, which has also given instructors new resources and tools to utilize in the classroom. Digital devices such as laptops and tablets have made it easier for students to access educational materials, collaborate with their peers, and receive feedback from their teachers. Online learning platforms, such as MOOCs (Massive Open Online Courses), make learning easier for people, no matter where they are in the world.

At the same time technology has changed the traditional way of teaching and there are also concerns about the role of technology in education and how it can affect education. However, most people feel that there are some benefits to using technology-enhanced learning in the classroom but others believe that it has some disadvantages , this is the part of the debate.

In 2020, the National Education Policy (NEP-2020) has recommended that schools include a new subject called Artificial Intelligence (Al) in their regular curriculum. The curriculum Plan is a plan to teach children in school. It has been formulated in line with the National Education Policy 2020, which aims to improve education in the country. NCERT and CBSE Board have announced that in class 9 and 11 in the academic session 2019-2020 and in class 10 and 12 in the academic session 2020-2021 AI (Artificial Intelligence) subject has introduce or start to teach.

AI means artificial intelligence that makes systems or machines super fast, and these machines can mimic human intelligence and perform tasks like humans. And machines perform better than humans because machines can work 24 hours without any rest and without error. With the help of these we can achieve our goals in quick time.

Overall, technology has had a major impact on education. It has helped students and teachers access more information and opportunities and opened up new ways of learning. But, like anything else, it needs to be used judiciously and it's important to consider the potential benefits and limitations before using it. It is also important to ensure that technology is used to support, rather than replace, effective teaching and learning.

Objective

The objective of this research paper to provide the leverage knowledge about the latest technology to enhance the quality and accessibility of education.

- How AI can be used to improve the quality of higher education in India through NEP 2020.
- How AI can help create personalized learning experiences for students by analyzing their strengths, weaknesses.
- How AI can make education more accessible to students in remote and rural areas by providing digital educational resources, such as e-books, online courses, and virtual classrooms.
- How AI can help automate the grading and evaluation of assignments, freeing up teachers to focus on other important tasks such as mentoring and guiding students.
- How AI can analyze student performance data and detect learning difficulties at an early stage, enabling teachers to provide support more effectively.
- How AI can help students develop valuable 21st-century skills, such as coding, data analysis, and digital literacy that are crucial for success in the modern workforce.
- How AI can support innovation and research in the education sector by providing new tools and resources for teachers and students.
- To examine the pros and cons of including AI in higher education in India in NEP 2020.

In summary, the objective of incorporating AI in the NEP 2020 is to use technology to enhance the quality, accessibility, and effectiveness of education in India. The hope is that AI will help create a more equitable, inclusive, and technologically advanced education system that prepares students for the challenges of the future.

AI and NEP 2020

The National Education Policy (NEP) 2020 of India aims to transform the country's education system by prioritizing access, equity, quality, and accountability. Artificial Intelligence (AI) has the

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potential to play a significant role in supporting this transformation and achieving the goals of the NEP 2020.

One of the key areas where AI can contribute to NEP 2020 is by improving the quality of education. AI-powered systems can provide personalized learning experiences for students, adapting to their individual needs and learning styles. For example, AI algorithms can analyze student data, such as learning patterns and performance, to provide tailored recommendations and feedback to teachers and students. Additionally, AI can assist with grade prediction, early identification of students who may be struggling, and provide individualized support to improve learning outcomes.

Another area where AI can help with NEP 2020 is by making education more accessible and inclusive. AI can support multilingual learning and improve education for students from diverse backgrounds, such as rural areas, who may not have access to quality education. AI can also provide equal opportunities for students with disabilities by enabling accessibility to educational resources and materials through assistive technologies.

Furthermore, AI can help in teacher training and professional development. AI can provide teachers with real-time insights into student learning and behavior, allowing them to make informed decisions about their teaching methods and approaches. AI can also provide teachers with access to a vast array of educational resources and help them stay up-to-date with the latest teaching techniques and strategies.

Role of Artificial intelligence

Personalized learning: AI can analyze a student's strengths, weaknesses, and learning style to provide customized learning experiences that cater to their individual needs.

E-learning: With the current pandemic and changing times, AI-powered online education platforms are becoming increasingly popular and can help in implementing new education policies by providing easy and accessible education to students.

Adaptive testing: AI algorithms can help create adaptive tests that change in difficulty as the student progresses, providing an accurate assessment of their abilities.

Predictive analytics: AI can help educators and policy makers make informed decisions by analyzing data and predicting student outcomes, helping them allocate resources more effectively.

Intelligent tutoring: AI-powered tutors can provide instant feedback, improve student engagement, and help students learn faster and better.

Overall, AI has the potential to revolutionize education and help in the implementation of new education policies by providing personalized, accessible, and effective learning experiences to students.

Future Scope

The future of artificial intelligence (AI) in education is expected to be characterized by further advancements and increased adoption of AI technologies in the field. Some of the key trends and developments that are expected to shape the future of AI in education include:

Increased Personalization: AI is expected to continue to play a larger role in providing personalized learning experiences that cater to the unique needs of each student.

Virtual and Augmented Reality: AI will likely play a significant role in the development of virtual and augmented reality technologies for education, providing students with immersive and interactive learning experiences.

Predictive Analytics: AI will be used to analyze large amounts of data from students' performance and provide insights to educators and policymakers on how to improve the education system.

Automation of Administrative Tasks: AI will be used to automate routine tasks such as grading and assessment, freeing up teachers' time to focus on more important aspects of teaching.

Collaborative AI: Collaborative AI, where AI algorithms work together with teachers and students, is expected to become more prevalent in the future, allowing for more effective and efficient learning experiences.

Overall, the future of AI in education looks promising, with the potential to revolutionize the way students learn and provide a more personalized, accessible, and effective education experience.

However, it will also be important to address the limitations and ethical concerns associated with the use of AI in education, to ensure that its benefits are maximized and its drawbacks minimized.

Advantage

- **Personalized learning :**

Personalized learning means that AI algorithms can see how students are learning and adapt content to meet their specific needs. It makes learning more interesting and easier for him, as it takes into account their strengths and weaknesses.

- **Improved assessment :**

AI can help categorize assignments more accurately and quickly thus helping teachers a lot and allowing them to focus their free time on more important aspects of teaching.

- **Increased accessibility :**

AI can be used to develop educational software and online resources which we can accessed from anywhere with the help of an internet connection, with this making education will be more accessible to people in remote and underserved area.

- **Enhanced engagement :**

AI can help educators create engaging learning experiences that help students learn and retain information.

- **Data-driven decision making :**

AI is capable of analyzing large amounts of data to help educators and policymakers make informed decisions about how to improve the education system.

Overall, AI should be used in education policy to help students learn more effectively and personalized. That can change the way students learn, making their learning easier and more effective.

Limitation

While the integration of artificial intelligence (AI) in the education policy has many potential benefits, there are also some limitations that need to be considered:

- **Bias:**

AI algorithms can perpetuate biases and perpetuate inequalities if they are not designed and trained in a fair and transparent manner.

- **Job loss:**

The use of AI in education may lead to job loss for teachers, particularly in lower-level tasks such as grading and assessment, which can be automated by AI algorithms.

- **Technical issues:**

The use of AI in education requires a reliable and stable internet connection, which can be a challenge in some regions with limited connectivity. Technical issues with AI systems can also disrupt learning and cause frustration for students and teachers.

- **Cost:**

Developing and implementing AI-based educational systems can be expensive, and may not be feasible for many schools and educational institutions, particularly those in low-income areas.

- **Dependence on technology:**

The integration of AI in education can lead to a greater dependence on technology, which can have negative consequences such as reducing students' critical thinking skills and creativity.

- **Limited adaptability:**

AI systems are limited in their ability to adapt to new or changing situations, and may struggle to accommodate the diverse needs and learning styles of students.

It is important to consider these limitations when developing and implementing AI in the education policy, and to ensure that any solutions are designed in a way that maximizes their benefits and minimizes their drawbacks.

Conclusion

In conclusion, AI has the potential to play a crucial role in supporting NEP 2020 and achieving its goals. However, it is important to ensure that AI is used in a responsible and ethical way, considering its limitations and potential impacts on society. Research in this area should continue to

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explore the benefits and challenges of AI in education and provide recommendations for its effective implementation in the Indian education system.

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AI and Digital Marketing in India

Dr.Ritu Tiwari
Head, Department of Economics Dayanand Arya Kanya Mahavidyalaya, Nagpur MH India

Abstract

Artificial intelligence (AI) became a topic of interest these days. AI is a broad area of computer science that makes machine. In simple words, AI refers to systems or devices that simulate human intelligence. Nowadays, due to the world's improvements and to our abilities in teaching machines to act like humans, artificial intelligence applications can be seen in many areas such as health, education and business. AI is used in a variety of day to day activities such as social media, email communications and digital assistants. Collecting data from emails, social media and web is called AI marketing. In this literature review, examples of AI marketing will be mentioned, in addition to the impact of using AI on marketers.

Marketing teams spend most of their time on drafting social media updates, preparing reports, personalizing emails and managing paid media spent. These tasks are considered repetitive and complex, and they could be done more efficiently by using AI. AI technology helps to ensure that your consumers are only receiving the most relevant, valuable and personalized content. Several consumers won't interact and may ignore non-personalized marketing. According to A report by management consulting firm Accenture,over 40% of customers switched brands due to the absence trust and poor personalization.

Artificial intelligence is becoming increasingly popular because: It is focused on greater precision and accounts for more accuracy and very few errors, which means greater work efficiency. AI analyzes more and deeper data for valuable insights. It can nurture the capabilities of various devices with its smart algorithms. GPS trackers, voice assistants, and home automation systems are just a few examples. AI can easily adapt to new input through progressive learning algorithms.

Now, we have Marketing Automation like various CRMs which help us in managing data and provide smooth customer handling. we are progressing to incorporate Artificial Intelligence in various types of business. It is projected that 45% of economic earnings for 2030 will come from the commercial application of AI solutions, marketing strategies and more personalized and effective than the current ones.

In this paper we are going to have deep insight of various aspects of AI in Digital Marketing with special reference to India. Its Consequences and Legislations are also very important aspect to be reviewed.

Key words: AI, Digital Marketing, Indian Market, On line Platform, Digital India, Legislation, Consumer Behavior

Introduction:AI (Artificial Intelligence) and digital marketing are two rapidly evolving fields that are increasingly being integrated. AI technologies, such as machine learning, can help automate and optimize various digital marketing tasks, such as personalization, target audience identification, and ad placement. This can lead to improved marketing efficiency and effectiveness, as well as enhanced customer experiences. On the other hand, digital marketing provides vast amounts of data that can be used to train AI models and improve their decision-making abilities. Thus, the two fields are becoming mutually beneficial and driving innovation in each other.

Artificial Intelligence (AI) and Digital India are two of the most transformative technologies of the 21st century. Together, they have the potential to revolutionize the way businesses operate and services are delivered to citizens. This essay will explore the relationship between AI and Digital India and the potential impact of this partnership.

Digital India is a government initiative launched in 2015 with the aim of transforming India into a digitally empowered society and knowledge economy. The initiative aims to provide government services online, increase digital literacy, and promote the use of digital technologies in various sectors. AI, on the other hand, is a field of computer science that deals with the development of algorithms and systems that can perform tasks that typically require human intelligence, such as recognizing patterns and making predictions.

AI has the potential to significantly enhance the impact of Digital India. For example, AI algorithms can be used to analyze vast amounts of data to identify patterns and trends, providing valuable insights into the needs and behaviors of citizens. This information can be used to improve the delivery of government services and make them more efficient and effective.

In addition, AI can be used to automate certain tasks, such as customer service and data analysis, freeing up government employees to focus on more strategic initiatives. AI-powered chatbots can provide citizens with immediate answers to their questions, reducing wait times and improving the overall customer experience.

➢**Review of literature:**

The use of AI in digital marketing can provide valuable data and insights that can help improve marketing efforts. Some examples of data that can be generated through the use of AI in digital marketing include:

- **Customer behavior data**: AI can track and analyze customerbehavior patterns and preferences, such as website clicks, product searches, and social media interactions. This information can be used to personalize marketing efforts and improve customer engagement.
- **Campaign performance data**: AI can measure the effectiveness of marketing campaigns in real-time, providing insights into what's working and what's not. This data can be used to optimize marketing strategies and allocate resources more efficiently.
- **Predictive analytics**: AI can analyze largeamounts of data to make predictions about future customer behavior and market trends. This information can help marketers make informed decisions about future marketing initiatives.
- **Sentiment analysis**: AI can analyze customer feedback, reviews, and social media posts to determine the sentiment behind them. This information can help marketers understand how customers feel about their brand and make improvements where necessary.

We can state that the use of AI in digital marketing provides marketers with valuable data and insights that can help improve the efficiency and effectiveness of their efforts.

Some statistics about use of AI in digital marketing

Here are some statistics about the use of AI in digital marketing:

- **Adoption rate**: According to a survey by Salesforce, 78% of marketers are already using or plan to use AI in their marketing efforts.
- **Personalization**: Personalization is one of the most popular uses of AI in digital marketing, with 60% of marketers reporting that they use AI for personalization, according to a survey by Salesforce.
- **Chatbots:**Chatbots are one of the most widely adopted AI technologies in digital marketing, with a report by Juniper Research estimating that the global chatbot market will reach $1.25 billion by 2025.
- **Customer service**: AI-powered customer service solutions, such as chatbots, are becoming increasingly popular, with a report by Accenture estimating that AI could save companies up to $8 billion per year by 2023.
- **Predictive analytics**: Predictive analytics is another popular use of AI in digital marketing, with a survey by Salesforce finding that 56% of marketers are using or plan to use AI for predictive analytics.
- **Advertising**: AI is also being used to automate and optimize digital advertising efforts, with a report by AdWeek estimating that programmatic advertising will account for over 80% of all digital ad spending by 2025.

Therefore, we can conclude that the use of AI in digital marketing is growing rapidly, with a wide range of AI technologies being adopted to improve marketing efficiency, personalization, and customer engagement.

The reviewed literatures suggest that artificial intelligence can have an effective impact on marketing field. Whereas humans working with machines will increase the productivity and creativity. To add on that,AI and humans will enhance each other's strengths and most of companies takes full advantage of this collaboration.

- **Consequences of use of AI in digital marketing**

The use of AI in digital marketing has both positive and negative consequences. Some of the positive consequences include:

Increased efficiency: AI can automate many repetitive tasks, such as ad placement and customer service, allowing marketers to focus on more strategic initiatives.Persuading your prospects is an important part of targeted marketing. But how can you persuade people you don't know? With the help of AI in virtual assistants, predictive consumer segmentation, or smart design for individualized customer experiences. Traditional advertising is less effective than marketing that targets individuals based on their broad inclinations. And, now that artificial intelligence is available, marketers may utilize customized data to estimate whether buyers will be interested in buying before asking them to pay anything.

Improved personalization and customer relationship: AI can analyze vast amounts of customer data to provide highly personalized experiences, which can lead to increased engagement and conversionrates.AI plays an important role in customer relationship management. Companies can get real-time insights into how their customers interact through the many channels they use to communicate. Users can allocate issues to the right support group automatically, and then utilize statistical models to decide the best next step. Chatbots can be used to offer knowledge via automated workflows, which can be a very cost-effective approach to growing the customer base. Monitor customer data to determine which prospects are most likely to become customers and then assist organizations in nurturing these partnerships.

AI-powered content marketing: The secret to marketing and progress is to find the appropriate consumers with the appropriate message at the right moment. This is sometimes accomplished by performing market research to understand what people are worried about from a cultural and societal standpoint and by reviewing macro-level facts about the target market like age group, income, and education level. It is critical to separate the information and build it into something you can present to your target if you want them to read your message. This is where artificial intelligence comes in. Artificial intelligence is becoming increasingly important in content delivery. It assists by anticipating subjects that are likely to draw attention and delivering material with pinpoint precision around those areas.

Better decision-making: AI can provide insights and predictive analytics that can inform better marketing decisions and drive more effective marketing efforts.AI assists businesses in analyzing massive volumes of data and predicting each customer's purchasing behaviour/decisions. This enables you to effectively conduct targeted marketing efforts to a specific audience. It also contributes to increased consumer satisfaction levels. Furthermore, by utilizing AI-driven techniques, marketers may simply turn the lead into a sale at the optimal periods to drive conversation.

However, there are also some negative consequences of using AI in digital marketing, including:Implementing even the simplest AI applications can present difficulties. Stand-alone task-automation AI, despite its lower technical sophistication, can still be hard to configure for specific workflows and requires companies to acquire suitable AI skills. Bringing any kind of AI into a workflow demands careful integration of human and machine tasks so that the AI augments people's skills and isn't deployed in ways that create problems. For instance, while many organizations use rule-based chatbots to automate customer service, less-capable bots can irritate customers. It may be better to have such bots assist human agents or advisers rather than interact with customers.

Job loss: Automation of certain tasks can result in job losses, particularly in areas such as customer service and advertising.

Privacy concerns: AI algorithms collect and analyze vast amounts of customer data, which raises concerns about privacy and data security.

Bias: AI algorithms can be biased, particularly if they are trained on biased data. This can result in discriminatory outcomes, such as biased advertisements or unfair treatment of customers.

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Decreased creativity: AI can automate certain tasks, such as ad placement and content creation, but it may also lead to a decrease in creativity and personalization in marketing efforts.

The use of AI in digital marketing can bring about significant benefits, but it's important for businesses to be mindful of the potential negative consequences and take steps to mitigate them.As a marketer, technology is here to enhance your role and simplify your tasks. Many fear that AI will take over the need for marketers. AI will transform and improve the life of marketers, but will never replace them. In fact, AI will change the way marketers work by helping them to be more precise and efficient as it forces them to be more data driven.

On the other hand, by automating the complex tasks, humans who work in the marketing sector will have the opportunity to concentrate more on other important key components of marketing such as advertising, customer services and creativity. According to some market experts, when humans and machines worked together, companies achieved powerful developments and improvements. This confirms the positive impact of humans working with machines in marketing.

- **AI legislation in India**

In India, the policy framework for AI is still in its early stages of development. However, the Indian government has recognized the potential of AI and is taking steps to promote its growth and development. Here are some initiatives and policies aimed at promoting AI in India:

National AI Strategy: In 2018, the Indian government launched its National AI Strategy, which aims to harness the potential of AI to drive economic growth, improve citizens' lives, and create new job opportunities.

NITI Aayog: The National Institution for Transforming India (NITI Aayog) is the government think-tank responsible for promoting the development of AI in India. NITI Aayog has launched several initiatives aimed at promoting AI research, development, and innovation, such as the AI for All program.

Skills development: The government is taking steps to develop the AI talent pool in India through skills development programs and initiatives aimed at promoting AI education and research.

AI Ethics: The government is also taking steps to ensure that AI is developed and used in an ethical and responsible manner, with the formation of an AI ethics committee and the development of guidelines for the responsible use of AI.

The Indian government recognizes the potential of AI and is taking steps to promote its development and growth. However, the policy framework for AI in India is still evolving, and it will likely continue to evolve as the technology matures.

Moreover, AI can be used to improve digital financial services in India. AI algorithms can be used to analyze financial data and provide valuable insights into consumer spending patterns and risk management. This information can be used to develop more effective financial products and services, such as personal loans and insurance policies.

However, the use of AI also raises concerns about privacy, bias, and job loss. AI algorithms collect and analyze vast amounts of data, raising concerns about privacy and data security. Additionally, AI algorithms can be biased, particularly if they are trained on biased data, leading to discriminatory outcomes. Finally, automation of certain tasks can result in job losses, particularly in areas such as customer service and data analysis.

In conclusion, Therefore Artificial Intelligence can benefit your Digital Marketing Strategy. AI isn’t here to replace the jobs of marketers or advertisers; it’s here to up their true strategic game and creative potential. For this advertisers and marketers must adapt to the current AI trend. The smarter and more integrated AI applications are, the more worries customers may have about privacy, security, and data ownership. Customers may be skittish about apps that capture and share location data without their knowledge or about smart speakers that may be eavesdropping on them. In general, consumers have shown a willingness (even eagerness) to swap some personal data and privacy in exchange for the value that innovative apps can provide.

Concerns about AI applications like Alexa seem to be dwarfed by appreciation of their benefits. Thus the key for marketers as they expand the intelligence and reach of their AI is to ensure that its privacy and security controls are transparent, that customers have some say over how their data is collected and used, and that they get fair value from the firm in exchange. To guarantee those protections and maintain customers' trust, CMOs should establish ethics and privacy review boards—with both marketing and legal experts—to vet AI projects, particularly those that involve customer data or algorithms that may be prone to bias, such as credit scoring. The relationship between AI and Digital Market has the potential to revolutionize the way businesses operate and services are delivered to citizens. However, it's important for businesses and the government to be mindful of the potential negative consequences and take steps to mitigate them. By balancing the benefits of AI with the need to protect citizens' privacy and prevent biased outcomes, India has the potential to become a leader in the digital economy.

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The Study Of The Efforts Of The Indian Government For Environmental Protection And Sustainable Development In India

Rizwan Khan

Assistant Professor , D.R.B. Sindhu Mahavidyalaya, Nagpur

Abstract:

The organized principle towards which sustainable development points, emphasizes the strength of natural resources and ecosystems to provide their services to society and the economy. It encourages the strengthening of a system where human needs are met without affecting the integrity and sustainability of natural resources. In this way, sustainable development refers to such development, under which the needs of the future generations are not compromised to meet the needs of the present generation. In addition, environmental protection voluntarily enhances the sustainability of development to some extent. Therefore, it is clear that environmental protection and sustainable development are not only complementary but separate concepts both give a feeling of incompleteness. The layout of the plan has the most important role in urban planning. If environmental aspects are seriously considered while planning, then the damage caused during development can be reduced. It is often seen that trees or other ecological components coming in between are sidelined during the development work. This situation is seen more during the development work being done in urban areas. The objective of this research paper is to study the efforts of the Indian government for environmental protection and sustainable development in India.

Keywords: Sustainability, Ecosystem, Environmental Protection, Sustainable Development, Society and Economy, Budget

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

- To study the efforts of the Indian government for environmental protection.
- To study the efforts of the Indian government for sustainable development in India.

Introduction:

Environment plays a very important role in the economic progress of a country. A major part of a nation's development is linked to production in various sectors. Natural resources like water, fossil fuels, and natural resources like soil are needed in different areas. However, the production also results in the absorption of pollution by the environment. Apart from this, due to the excessive use of resources for production, the problem of lack of resources also arises in the environment. As we see that for the development of the country, a huge amount of land is acquired due to which trees are cut down. Similarly, in the name of development, non-renewable sources, such as fossil fuels, water, and minerals are being used very fast, due to which they are not being replaced again by the earth. Global warming and depletion of resources have affected residents around the world, preventing them from enjoying the benefits of this progress. However, people who understand economic matters believe that the felling of trees seems necessary many times for city expansion, construction of flyovers, and establishment of industrial areas. They argue that it is not correct to lump together environmental and economic challenges. However, he also believes that the possible environmental aspects of developmental projects should be considered sensitively before they are approved.

Sustainable development is a process of change, in which the exploitation of resources, the direction of investment, the orientation of technological development, and institutional change are all harmonized and enhanced both present and future capacity to meet human needs and aspirations. The economy includes all quantitative and qualitative changes that provide a positive contribution to the welfare and ecological sustainability. All quantitative and qualitative environmental strategies act to improve the quality of ecosystems and ultimately have a positive effect on welfare. Both economic and environmental systems require a certain minimum starting point to survive. The idea of sustainable development reaches far beyond environmental protection, as it implies a process of change, including the exploitation of resources, and the direction of investment, The orientation of technological development and institutional change is rationalized into the future as well as to the needs of the present. It is not a fixed position of harmony, but a balance of change. It is an efficient and friendly process.

It is noteworthy that in the year 2006, the Environmental Impact Assessment has been adopted by the government. The National Green Authority also carries out environmental impact assessments from time to time. In this context, sustainable development is a better option, which highlights the importance of environmental protection along with economic development. Adopting the principle of sustainable development will require a fundamental change in thinking. The true costs of resource depletion and pollution should be restricted in data used for decision-making, as they affect future generations rather than the now short-term benefits of depleting resources to income producers. Data should take into account future needs alongside current needs, not reduce them, making decisions in favour of short-term impacts.

Deforestation may be necessary for agricultural development in the economy, but it can prove fatal and detrimental to global ecological sustainability when a country experiences rapid population growth or rapid urbanization, the Gross National Product growth can hide major development problems. The same difficulties arise when the world demands raw resources from a country or region to meet global needs. In short, until we are prepared to define sustainability which includes the study of both external threats from food policies in the North and internal threats from demographic pressures in the South, this confusion will persist. Similarly, to deal with the growing problems of land pressure in India, to check and control the population growth rate, to ensure balanced livestock development; And it is necessary to control the transfer of land. For sustainable development, the adverse impact on the quality of air, water, and other natural elements must be minimized so that the overall integrity of the ecosystem can be maintained.

The Efforts of the Indian Government for Environmental Protection and Sustainable Development in India:

In different cities of India, where the problem of environmental pollution is continuously increasing, indiscriminate cutting of trees in the name of developmental activity seems to be a contradictory step. Trees are a primary component for proper development. The tree is the link that serves to connect the physical world and the natural world. It is very important for carbon sequestration, the production of solar energy, and providing a variety of materials for the physical world, as well as for the food chain and biodiversity. The natural environment has a wide impact on our social and economic life. The artificial and social environment is created by our happy and prosperous life. Therefore, the economic environment includes the state of the economy, economic rules, beliefs, direction of economic development, etc. The economic environment is related to human economic activities. In this, all activities related to earning money by humans and spending it efficiently are included. It includes agriculture, industry, trade, commerce, transport, communication, insurance, banking, government income-expenditure, and all other statutory economic activities.

The environment can generally be divided into two parts. The first is the geographical and natural environment and the second is the artificial and social environment. The natural and geographical environment includes water, vegetation, livestock, mineral wealth, etc. Due to the continuous consumption of natural resources and increasing pollution levels, the quality of environmental resources will deteriorate, which will not only affect the quality of production. Rather, all kinds of health problems will arise in the laborers engaged in its production and along with this it will also prove to be very harmful to those for whom it is being made. Intervening trees or other ecological components are bypassed during the development work. This situation is seen more during the development work being done in urban areas.

The economic environment does not remain stable. The economic environment is also affected by the internal and international conditions of the country. Economic prosperity and development depend on the environment. The economic environment is employment-oriented and also helps in driving the progress of the country. If the economic environment is unfavourable then poverty, unemployment, starvation, and public discontent have to be faced which hinders the development of any country. If the country's economic environment is correct and balanced, then the country will

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move forward on the path of progress and development. Public welfare schemes will also be operated in the right direction. The happy life of human beings also depends on the balanced development of the economic environment. Therefore, it can be said that the compatibility of the economic environment acts as an assistant in taking forward the development of the country.

In the present global scenario, man has become so blind in the pursuit of materialism that natural resources are in danger. These natural resources are not intact. Therefore, due to their exploitation, the arrival of serious natural calamities and the crisis of resources for future generations has arisen. In such a situation, the attention of the global community turned towards environmental protection and sustainable development. In other words, if environmental protection is a means, then 'sustainable development' is an end. Sustainable development can be achieved only by conserving this natural wealth. Environmental protection refers to the surroundings around the earth in which all living beings including flora, fauna, and human beings, and their related physical premises. Due to internal and external activities on this cover, a crisis has started looming. Realizing the seriousness of the crisis, the global community has intended to protect it in its conferences. Since the protection of the environment is in such a way that there is no crisis for the future generation even after its exploitation, in this sense the concept of sustainable development has emerged here.

Maintaining a desirable balance between economic development and environmental protection is sustainable and sustainable development. Presently it has become a global approach to development. In India, the basis of economic growth is also sustainable development based on environmental protection, which India has also declared in global conferences. The basis of the Indian economy is still agriculture. Agriculture is important not only in terms of share of GDP but also in terms of employment and labor force. Therefore, today it has become necessary to move towards development while preserving the environment, such a development which continues till the future generation without any crisis. For this, like the global community, India is also serious. Keeping in view the exploitation of energy, instead of traditional energy, emphasis is being laid on alternative energy. A well-planned system has been developed for the construction of industries and factories and the disposal of residual materials. Flood and their impending crisis are also being kept in mind for the river project. In this sequence, along with saving water, the plan of Ganga cleaning is also a useful program for environmental protection so that the concept of sustainable development can be achieved. In this way, there is an unbreakable relationship between environmental protection and sustainable development, so resources should be used in such a way that future generations will also benefit. This can also increase the rate of economic growth. Like the global community, the Government of India is also very serious about this issue.

While worrying about the environment and health, this time a revolutionary beginning has been made in the budget. The announcement to promote chemical-free natural farming is very important for making farming more profitable and eco-friendlier. Almost all the countries of the world often talk about environmental protection, but the budget of any country is generally not prepared to keep the environment in mind. The Government of India has shown the courage to do so in the budget presented. In doing so, certainly India has presented a roadmap to the world community today through this new initiative. How Prime Minister Narendra Modi reiterated the resolution of One Sun, One World, and One Grid to the world community during the recently concluded Glasgow Conference, is visible in this budget. If we only talk about sustainable development, then it will prove to be a milestone in this direction. If we look at the budget from the point of view of the environment, then many of its provisions establish it. If we look at Prime Minister Gati Shakti, this project can be considered the beginning of the era of modern infrastructure by establishing harmony with the environment through the master plan.

The government has also announced in this budget to issue Sovereign Green Bonds as a part of market borrowing during the financial year 2022-23 to raise resources for green infrastructure. This will help in many ways in the field of environment besides realizing green projects. Overall, this budget can be called an innovative experiment of an able and capable India, which is determined to realize the concept of green growth while being inclusive and in harmony with the environment. A revolutionary initiative in the field of electric vehicles has already taken place in the country and to promote it widely, the private sector will be encouraged to develop more sustainable and innovative business models. Battery or energy as a service will improve the efficiency of the related system by developing a holistic environment conducive to electric vehicles. This will encourage the use of public transport in urban areas, especially metros. As a result, it is also possible to solve the big problem of air pollution to some extent.

India has set a goal of net zero carbon emissions by 2070. He says that the country's focus is on 'Green Growth' and 'Green Jobs'. The government has also taken various steps for this and the Ministry of Defense has also made a lot of efforts on its part to make these steps successful. The Indian Army has taken a special initiative on its part for environmental protection. Electrical vehicles are being included on a large scale in the fleet of the Indian Army. The target is to electrify 48 percent of motorcycles in the Army in a phased manner. At the same time, a goal has been set to electrify 38 percent of the total number of buses. Along with this, the Indian Army has planned to electrify 25 percent of its light vehicles in a phased manner. To control pollution along with the sustainable development of the economy, since 2014, the exercise to promote an electrical and natural gas-based economy was started rapidly in the country. In this sequence, the number of CNG stations in the India has increased from 900 in 2014 to 4500 in 2022. And the number of PNG connections has increased from 24 lacks in 2014 to 95 lakh in 2022.

While worrying about the environment and health, this time a revolutionary beginning has been made in the budget. The announcement to promote chemical-free natural farming is very important for making farming more profitable and eco-friendlier. Budget farming, natural farming, zero organic farming, and updating of the curriculum of agricultural universities to meet the modern needs of agriculture have also been announced in the budget. Along with this, the scope of this portal will now be expanded to promote green clearance and provide information to the applicants. The budget this year has announced 400 new Vande Bharat trains with improved energy efficiency over the next three years, which is a major step towards green transportation. In the same sequence, to promote multi-modal connectivity, the initiative to connect metro stations with railway stations is also noteworthy in the direction of green transport. Another important initiative towards green transportation is the National Ropeway Development Program under PPP mode. This National Ropeway Development Program can be of great help in promoting tourism in the geographically remote areas of the country where conventional mass transport system is not possible, including providing connectivity facilities for the passengers.

Conclusion:

A glimpse of cleanliness and environmental protection can be seen in every policy of the Government of India. Whether it is Swachh Bharat Mission or Ujjwala Yojana, wildlife protection, a ban on single-use plastic, etc., we see a glimpse of it. The promotion of electrical vehicles also comes under this. The way the Government of India is committed to the environment and is continuously working in this direction. When the economy develops the potential for rapid growth, many new challenges also arise. We have to decide from the point of view of economic growth and sustainable development, how to optimally use the scarcest resources. There is much evidence to suggest that overall human welfare may decrease as a result of such policies. Economic growth should be based on the optimum utilization of natural resources and at the same time development should be balanced from an environmental point of view. Poverty eradication and sustainable prosperity cannot be achieved without taking care of the environment and natural resources. There is a correlation between the environment and economic growth. Environment and socio-economic development are interlinked in such a way that development cannot be imagined without its impact on the environment.

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Comprehensive Sophisticated Certain Solutions to Overcome the Rigid Flaws of HDFS.

Rohini d. Dhage
VMV Commerce, JMT Arts & JJP Science College, Nagpur.
Vaibhav r. Bhedi
VMV Commerce, JMT Arts & JJP Science College, Nagpur.

Big data primarily refers to data sets that are too large or complex to be dealt with by traditional data-processing application software. Data with many fields offer greater statistical power, while data with higher complexity may lead to a higher false discovery rate. To handle such tremendous amount of date various tools have been developed such as HDFS. Hadoop Distributed File System which is totally based on the distributed file system, it has powerful storage capacity. Some issues have been found in HDFS and provided solutions on it. The proposed paper have been introduced solutions to eliminate single point of failure across whole storage system and improve efficiency and performance of the system by reducing formation of metadata bottleneck operations and at last to improve read and write operation of system.

Keywords: HDFS, SPOF.

1. INTRODUCTION

Big data is a collection of complex and massive data sets and volumes that processes a vast quantity of data, data management capacities, social media analytics, and real-time data. Big data is about data volume, and large data sets are measured in terms of terabytes, or petabytes are considered as Big data [1]. It is very difficult to handle such a massive amount of data, here various new technologies are introduced, after applying such technologies to process such a huge amount of data. Various frameworks have been developed to deal with such a considerable amount of data. To handle such a massive amount of Structured, Unstructured, and Semi-Structured data and retrieve such data is a challenging task. HDFS techniques are used for storing and retrieving such a vast amount of data. This technology is based on the distributed file system that is broadcast on multiple file servers or multiple locations. The main goal of Distributed File System is to provide common view of centralized file system, even though it has a distributed implementation. In a distributed file system, one or more central servers store files that can be accessed by any number of remote clients in the network. The DFS allows multi-computer systems to share files without any need of IPC or RPC. Files are shared between users in a hierarchical and unified view. The HDFS is nowadays not capable to fulfil all users requirement and needs some problem solving techniques [2].

The Hadoop Distributed File System (HDFS) is a distributed file system running on commodity hardware. It has many similarities with existing distributed file systems. However, the differences from other distributed file systems are significant. HDFS is highly fault-tolerant but some major faults has been found due to the latest requirement of users. HDFS provides high throughput access to application data and is suitable for applications that have large datasets. HDFS works on Namenode and Datanode, in which Namenode works as the Master node in which it stores the metadata of HDFS. In Datanode, actual data is stored in blocks, also known as a Slave node. Due to large dataset is facing problems in data availability [3].

Further this paper is showing the problems in HDFS, namely single-point failure, scalability problem, metadata system bottleneck and Read-Write operation. Here the quality solutions are provided by research to avoid all problem and complication of HDFS.

1.1. Hadoop Distributed File System

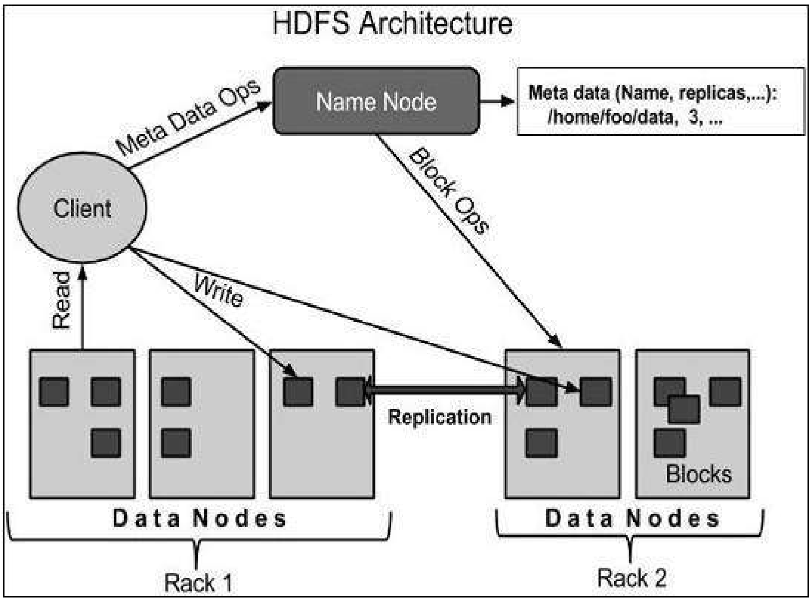

Fig.1. Hadoop Distributed File System Architecture.

The Hadoop distributed file system (HDFS) is a distributed, scalable, and portable file system written in Java for the Hadoop framework. Each node in a Hadoop instance typically has a single name node, and a cluster of data nodes forms the HDFS cluster. The situation is typical because each node does not require a data node to be present. Each datanode serves up data blocks over the network using a block protocol specific to HDFS. The file system uses the TCP/IP layer for communication. Clients use Remote procedure calls (RPC) to communicate with each other. HDFS stores large files (typically in the range of gigabytes to terabytes) across multiple machines. It achieves reliability by replicating the data across multiple hosts, hence not requiring RAID storage on hosts. With the default replication value, 3, data is stored on three nodes: two on the same rack and one on a different frame. Data nodes can talk to each other to rebalance data, move copies around, and keep data replication high [3].

2. PROBLEMS IN CURRENT HDFS SYSTEM:

The single point failure is a problem of formation across the storage system while dealing with HDFS. It is observed that system scalability is limited, unable to meet PB scalability requirements when a massive amount of data storage or retrieval process occurs, metadata hotspot chances get increased while dealing with data, frequently used data accesses increases and rarely used data is in the ideal state, so need to prevent the formation of a hotspot in the system.

The proposed problems in HDFS are explained below:

i) If system contains single name node and multiple data nodes, one condition occurs if namenode gets crashed or unavailable then the metadata will become unavailable as it is present in nam node. In existing HDFS this situation occurs then a huge amount of data is unmanageable and need to take back up from secondary namenode which is in ideal state mode. It will take time to recover for that during this time system is unmanageable. At this situation client is also being in ideal state and data accessing is totally stopped.

The problem of single-point failure in the HDFS system. If the server runs on a single node and fails, the application will be unstable or crash. The single point of failure in HDFS architecture is the NameNode. NameNode loss results in cluster unavailability. The permanent loss of NameNode data would render the cluster's HDFS inoperable. So a considerable amount of data is available but unmanageable [4].

Hadoop clusters include the most significant single HDFS cluster, with more than 100 PB physical disk space in a single HDFS file system. Optimising HDFS is crucial to ensuring that our systems stay efficient and reliable for users and applications.

ii) While considering read and write operation in HDFS system have single Namenode and multiple Datanodes is managed in n number of racks and if due to the heavy input output operation happened against n number of racks then the result made system goes down and it will affect on read and write operation of the system.

In the Read-Write operation client, first interact with the NameNode. NameNode provides privileges so the client can easily read and write data blocks into/from the respective Datanodes [5].

The Performance improvement needed for reading and writing operations to ensure quick data access. It is observed that as the client requirement gets increases, such as read and writes operation load on Namenode gets increases and due to these data nodes storage processes also gets slow down. The whole system goes down due to heavy I/O operations on N number of racks.

3. SOLUTIONS TO OVERCOME FROM ABOVE PROBLEMS:

i) Single Point of Failure:

The load balancing technique avoid the particular load of namenode due to which balance of processes are manage sophisticatedly. The synchronization method is become game charger. The research provides solution for namenode failure using synchronization technique. Synchronization makes allow to create duplication of namenode which help whenever namenode failure occur. The synchronized namenode will automatically get activated to avoid the system hangover. In this way system will never goes under failure problem and suitable to overcome from single point of failure. All the researcher who plans to propose their research regarding work related to financial sectors, including Government, Private and Public it becomes Big Data would plan to work under one roof then also this proposed solution of single point failure will work efficiently [6].

ii) Read and Write Performance of file:

The single-name node architecture in which the metadata system bottleneck occurs, the whole system gets down, and unable to perform read-and-write operation on system. Proposing the method considering multiple name node and on which applying routing algorithm for avoiding system bottleneck and must operate read and write operation smoothly. For improving the read and write operation of the system multi-level cache mechanism is applied to enhance I/O storage performance. While Implementing the read and write cache mechanism separately. At the same time, a multi-level read and write cache mechanism improves the Read and Write performance of the system.

4. RESULT OF IMPLEMENTED SOLUTIONS:

The research determine solutions on certain flaws are illuminated with sophisticated way to eliminate the proposed problems and grew better outcome compare to earlier research solution.

i) The load balancing technique avoids the particular load of Namenode, due to which the balance of processes is managed sophisticatedly. The synchronisation method becomes a game changer. The research provides a solution for Namenode failure using a synchronisation technique. Synchronisation creates duplication of Namenode, which help whenever Namenode loss occurs. The synchronised Namenode will automatically get activated to avoid the system hangover. This way, the system will never go under failure problems and is suitable to move from a single point of failure.

ii) While facing the problem of read and write performance issues, after applying a multi-level cache mechanism on separate read and write operations, the speed of the I/O operation gets automatically increased.

5. CONCLUSION:

The Hadoop Distributed File System is used to implementation proposed solutions. HDFS is facing some problems while dealing with data single point of failure and Read and Write operation. In this paper proposed techniques eradicated a Single point of failure and R/W operation. The Namenodes can be available accordingly user requirement or system failure by using synchronization technique. It positively affects the process of Reading and Writing operations which overcome by cache mechanism.

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Synthesis and Characterization of Sulphate based Thermoluminescence Material

S. C. Gedam
Dept. of Physics, K. Z. S. Science College, Kalmeshwar, Nagpur-441501, India
E-mail: gedam_sc@rediffmail.com

Abstract

The TL glow curves of gamma-irradiated $K_3Ca_2(SO_4)_3F$ and $K_3Ca_2(SO_4)_3F$:Eu, $K_3Ca_2(SO_4)_3F$: Ce samples have one glow peak indicating that only one set of traps is being activated within the particular temperature range. Characteristic trap site initiates the luminescence process in this material. The intensity of the PL peaks increases with increases of concentration of the Eu,andCe and intensity of the TL glow peaks increases with decrease of concentration of the Eu and in case of Ce TL glow increases first and then decreases with the increase in concentration.

Keywords: Thermoluminescence, halophosphor, Co precipitation, Sulphate

1. Introduction

In the field of luminescence, still scope of study of mixed halosulphate phosphor is wide open. Study on sulphate based phosphor like $CaSO_4$doped with rare earth (RE) has been done in 1955 [1, 2]. Recipe for preparing CaSO4: Eu phosphor has been given by Mohril et al [3, 4].CaSO4:$Eu^{2+}$was found to be suitable for application in photo luminescent liquid crystal displays[5]. Mixed sulphate phosphors doped by RE ions has been reported by Moharil et al. [6, 7]. Sahare et al have synthesized and characterized $K_2Ca_2(SO_4)_3$:Eu,Dy[8] and $K_2Ca_2(SO_4)_3$:Eu [9], $LiNaSO_4$:Eu [10], $LiNaSO_4$:Eu,Dy [11] mixed sulphates.

Halo sulphate-based phosphor are also synthesized and characterized, $Na_6Ca_4(SO_4)_6F_2$ by Klement[12] $Na_6Pb_4(SO_4)_6Cl_2$ [13, 14], $Na_6Cd_4(SO_4)_6Cl_2$ [15] have been reported. Dhoble et al have also reported halosulphate phosphors [16, 17]. Gedam et al have reported incorporation of Eu^{3+} in halosulphate phosphor [18]. Emission of Europium in the visible blue and red region found important industrial applications as the materials for mercury-free fluorescent lamps and color plasma display panels. Europium-dopedfluoride [19], borophosphate[20] and halosulphate[21], in tricolor fluorescent lamps [22], electroluminescent lamp and display devices [23],scintillation detectors [24], detectors for X-ray imaging [25–27].

Thermoluminescence (TL) technique has wide range of applications.Thermoluminescent materials can be utilized for radiation detectors and solid-state dosimeters for industrial and medical applications [28, 29]. Rhey are used in radiation dosimetry and to dating techniques in archeology and geology [30, 31]. TL studies are used to study the variety of defect centers created by ionizing radiation [32–33]. Considering lot of scope to study new material $K_3Ca_2(SO_4)_3F$, a choice of synthesis of fluoride based mixed halosulphate phosphor doped by Eu and Ce is made then TL characterization have been done.

2. Experimental

The sample $K_3Ca_2(SO_4)_3F$ (pure), $K_3Ca_2(SO_4)_3F$: Eu and $K_3Ca_2(SO_4)_3F$: Eu were prepared by co-precipitation method. Taking into consideration the following reaction:

$K_2SO_4 + 2CaSO_4 + KF= K_3Ca_2(SO_4)_3F$

Water soluble materials K_2SO_4 andKF of analar grade were taken in a stoichimetric ratio and dissolved separately in double-distilled de-ionized water. $CaSO_4$ was washed several times at constant temperature with distilled water, filtered and then was added to the solution, resulting in the solution of $K_3Ca_2(SO_4)_3F$ .Water-soluble sulphate salt of europium (99.99%) was added to get the solution of $K_3Ca_2(SO_4)_3F$: Eu. Similarly water-soluble sulphate salt of Cerium (99.99%) was added to the solution of $K_3Ca_2(SO_4)_3F$ to get $K_3Ca_2(SO_4)_3F$: Ce in liquid form. The solution was stirred for half an hour with the help of magnetic stirrer and then it was kept in oven for 12 hrs. at 80 ^{0}C. The resultant polycrystalline mass was crushed to fine particle in a crucible, this powder of $K_3Ca_2(SO_4)_3F$: Eu was used in further study. The formation of pure compound was confirmed by taking the X-ray diffraction (XRD). For thermoluminescence, samples were quenched at 350^0C and exposed to gamma rays from Co^{60} source at room temperature. After desired exposure,TL glow curves were recorded for 5 mg ofsample each time at a heating rate of $5^0C/s$. The TL glow curves were recorded with Thermoluminescence Reader (Nucleonix- TL10091).

3. Results and Discussion

The compound $K_3Ca_2(SO_4)_3F$ has Crystal structure of the apatite-like compound, which is found in coatings of heat recovery cyclones in portland-cement kilns, It crystallizes in space group Pn21a with a = 13.415000 b = 10.493000 c = 9.127000. [34].

Crystallographic data:

Structure parameters	
Common name	$K_3Ca_2(SO_4)_3F$
Unit cell parameters	A=13.415 Å, b=10.493 Å, c=9.127 Å, $\alpha = \beta = \gamma = 90°$
Cell volume	1284.75 Å^3
Number of distinct elements	5
Hermann-Mauguin symmetry space group	Pn 21 a
Hall symmetry space group	P -2ac -2n

3.1 X- Ray Diffraction (XRD)

XRD of $K_3Ca_2(SO_4)_3F$, synthesized by co precipitation method that matches with the standard data available (JCPDS card No 84-1210) , pattern did not indicate presence of the constituents K_2SO_4, $CaSO_4$, KFand other likely phases. These results indicate that the final product was formed in homogeneous form.It has been observed that the same compound $K_3Ca_2\ (SO_4)_3F$ which has been synthesized by solid state diffusion method has the same XRD pattern.

3.2Thermoluminescence (TL) Study

3.2.1 TL emission in $K_3Ca_2\ (SO_4)_3F$: Eu

Fig. 1 shows the TL glow curve of the pure compound $K_3Ca_2(SO_4)_3F$:Eu and Fig.2 shows the TL glow curve of the $K_3Ca_2\ (SO_4)_3F$: Euhalophosphor with different concentration of Eu, (a) 1 m% ,(b) 0.5m% ,(c) 0.2m% ,(d) 0.1m%,(e) 0 .05m%. The glow curve of TL in $K_3Ca_2\ (SO_4)_3F$: Eu consists of single peak, which is situated at about 419K. TL intensity is found to be increased twenty six times when concentration of Eu is minimum i.e.0.05m% than the pure material. TL intensity is decreased with increase in the concentration of Eu. The above TL emission peaks are characteristic of Eu^{2+} emission and should be quite suitable for application in TL dosimetryFig.3 shows the relation between the concentration of Eu ions and the TL intensity. TL intensity is observed maximum for the lowest concentration of Eu and it decreases with increase inconcentration of Eu.

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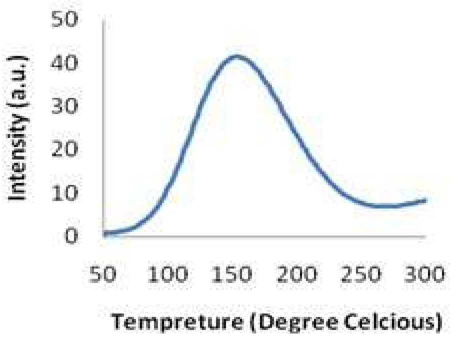

Fig. 1 TL glow curve of the $K_3Ca_2(SO_4)_3F$

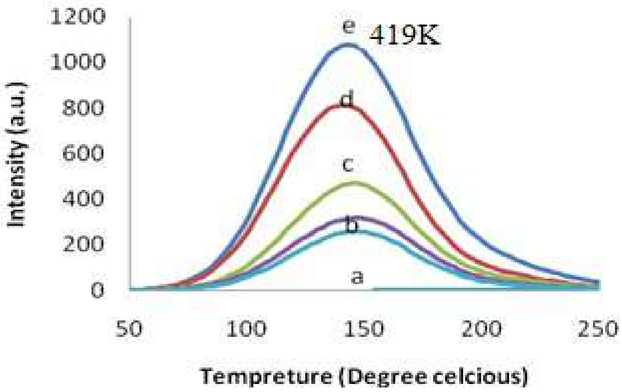

Fig. 2 TL emission in $K_3Ca_2(SO_4)_3F$: Eu
(a) 1 m% ,(b) 0.5m% ,(c) 0.2m% ,(d) 0.1m%,(e) 0 .05m%

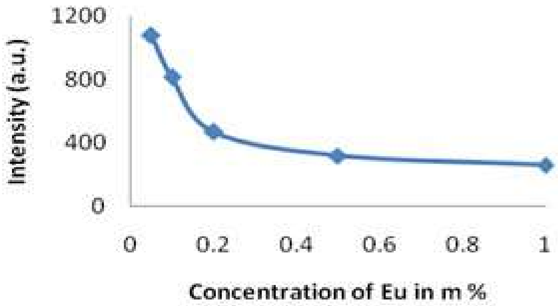

Fig. 3 Variation of TL Intensity with Concentration

3.2.2 TL emission in $K_3Ca_2(SO_4)_3F$: Ce

Fig.4 shows the TL glow curve of the $K_3Ca_2(SO_4)_3F$: Cehalophosphor with different concentration of Ce(a) 10 m% ,(b) 5m% ,(c) 2m% ,(d) 1m% The glow curve of TL in $K_3Ca_2(SO_4)_3F$: Ce consists of single peak, which is situated at about . TL intensity is very high when $K_3Ca_2(SO_4)_3F$ is doped with Cerium as compared to Europium. TL intensity is found maximum when the concentration of Cerium is 2m% then decreases with increase in concentration of Ce. Fig.5 showsthe relation between the concentration of Ce ions and the TL intensity. All the results are reported first time in present mixed halosulphate phosphors

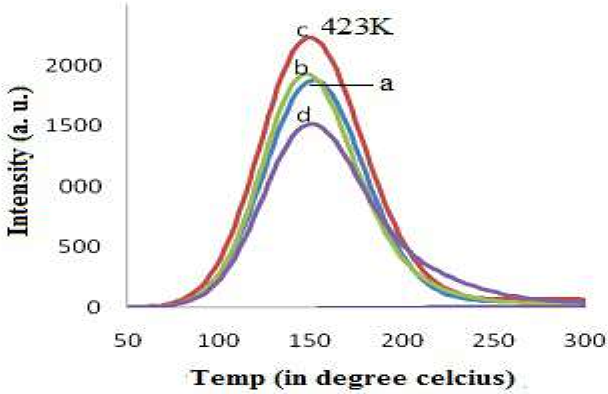

Fig 4 : TL emission in $K_3Ca_2(SO_4)_3F$: Ce
(a) 10 m% ,(b) 5m% ,(c) 2m% ,(d) 1m%

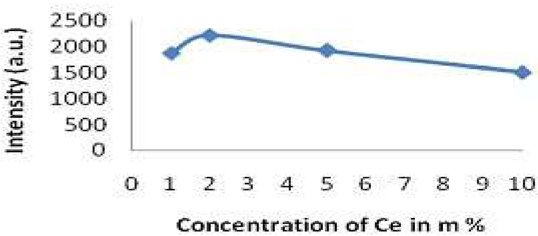

Fig. 5 variation with concentration

4. Conclusion

TL glow curves of gamma-irradiated $K_3Ca_2(SO_4)_3F$(pure), $K_3Ca_2(SO_4)_3F$:Eu and $K_3Ca_2(SO_4)_3F$:Ce all samples have one glow peak indicating that only one set of traps is being activated within the particular temperature range. Characteristic trap site initiates the luminescence process in this material. The intensity of the PL and TL changes with the concentration of the Eu and Ce.Co-precipitation method for the synthesis of $K_3Ca_2(SO_4)_3F$ is simple and better than the solid state method used earlier for the synthesis of the same compound by us.,Moreover, this synthesis method is very simple, low cost, saves energy and can be easily employed for the development of luminescent materials.

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A Study on Consumer Behavior towards Products of Patanjali (Special reference of Jagdalpur District, Chhattisgarh)

Dr. Sanjay Kumar Yadav
Faculty of Management Studies (FMS), ICFAI University, Raipur, (C.G)

ABSTRACT

Consumer behaviour the way individuals, groups, or organizations and all the activities associated with the purchase, use and disposal of goods and services, including the consumer's emotional, mental and behavioral responses that precede or follow these activities. The researcher in this research paper tries to focus on studying behavior of customers towards Patanjali Products in terms of satisfaction, price, natural ingredients used. This paper also focused on the source of information that customers used to get information regarding Pantajali products. To conduct this study a well designed questionnaire was used and 50 respondents were selected for the study. In this paper it is found that advertisement is one of the important source for providing information to customers. Customers now also prefer cash as the mode of payment. This study showed most of the customers is satisfied with Patanjali products.

Keywords: *Consumer Behaviour, product of Patanjali*

Introduction

Consumer behavior explains how consumers make decisions about what they need, want, and desire and how do consumers buy, use, and dispose of goods. Consumer behavior emerged in the after Second World War as a distinct sub-discipline in the marketing area.

Marketers need to study the concept of consumer behavior. It is important for marketers to know consumers opt for, purchase, consumer or dispose products and services and how they share their experience in order to satisfy their wants or needs. This can help marketers in product positioning.

In Indian scenario, perceptions and preferences about a particular brand play a vital role because Indian customers rely on the perception of their near and dear ones before actually buying or using the product. The perceptions and preference of the people around us affect our decision regarding purchasing a product or not to purchase. Perceptions of consumers are are very uch subjective and thus easily distorted. The way of purchasing and not to do it as continues into the mind or the black box of the prospective consumer unless his/her decision is not supported by many. Thus in order to survive in the marketing environment of a country like India, brand positioning is important. India is an attractive destination for brands to set in due to favourable marketing conditions.

Literature Review

The various studies pertaining to consumer behavior in India are as follows:-

Rani, S., and Shukla (2012) conducted a research to know the trends of Patanjali products. So for studying this they conducted a research report in Patnanagar. For this study a sample of 90 consumers in Patnanagar was selected. After completion of the study researchers concluded that within a very short period of time Patanjali products captured a large number of consumers. On the basis of above study they also find that from 2008 to 2012 there is increase in number of products that is from 26 to 120. Researchers viewed that Patanjali Ayurved Limited company should improve their delivery system.

Sawant (2013) carried out a study on consumer perception towards cosmetic products of Patanjali Ayurved Limited. On the basis of his study he concluded that women's were influenced for purchasing Patanjali skin care products because of absence of side effects in it.

Sinha and Singh (2015) carried out a study on competition in the cosmetic market in India between nation land international brand, and between herbal and chemical product. According to their study they concluded that younger generation especially females mostly prefer natural products.

Khanna (2015) carried out a study on consumer perception regarding Patanjali productsHe collected data from 100 respondents in Punjab. On the basis of his study he concluded that consumers were highly satisfied with the products of Patanjali Ayurved Limited due to its reasonable prices and due to curing ability.

Ali et. al (2015) carried a study to know about consumer perception towards herbal products. Their main objective of the study was to know the reasons of using various herbal products. For doing the above study they selected Bhopal city and researcher collected data from 60 consumers. After completion of the research it was found that people prefer natural products in comparison to chemical products. Research showed that all customers were having a positive attitude towards herbal products and there was no side effect faced by these people.

Rekha and Gokila (**2016**) carried a study to know about the reason consumers to switch over to herbal based cosmetics. It was found that consumers these days don't consider herbal products as luxury goods, rather understand its health benefits. It is also seen that risk of side effect from chemical based products is a major reason for consumers to prefer natural products.

Chandiralekha and Hamsalakshmi (2016) conducted a research report to know the consumer satisfaction with products of Patanjali Ayurved Limited. They concluded that most of the consumers prefer Patanjali product as it is chemical free and also the customers are satisfied with price and quality of Patanjali products.

Singh and Gopal (2016) carried out a study to know growth of Patanjali Ayurved Limited and they stated that "natural products with affordable prices and "Swadeshi Make" (make in India) is the main reason for the growth of Patanjali Ayurved Ltd.

Raju and Rahul (2016) conducted a report to know the factor which influences consumer buying behavior for Patanjali products and they stated that "Price plays a significant role in consumers buying behavior for Patanjali products.

Anupriya (2017) carried out a study on consumer satisfaction for the product of Patanjali Ayurved Limited and she identified that all the respondents prefer the Patanjali product as it is chemical free and they are satisfied with the quality and price of the product.

Maheshwari (2017) conducted a research report on growth of Patanjali Ayurved Limited. He concluded various reasons for growth of Patanjali products such as availability of quality products at lower price, strong brand ambassador, good distribution channel, swadeshi campaign, efficient team and good execution.

Tandon (2017) carried study and finds out that the traditional linking of Patanjali as an Indian company is the main reason for the growth of Patanjali. He concluded that there are many Professionals were joining Patanjali for only this reason and this has contributed a lot in growth of Patanjali.

Nawaz & Trivedi (2017) carried out study about the problems of some products of Patanjali Ayurved Limited. He concluded that there are few problems that are being faced by products of Patanjali. The test which was conducted on two of its product that is on Shivling beej and Amla juice were founded to be of low standards as per guidelines set by concerned department. These products had lower pH value than required as per standards.

Dsouza (2017) conducted a study on reason that help Patanjali Ayurved Limited to reach at 2ND position in FMCG market. He concluded that there are various products that have helped Patanjali to reach at the 2ND position in FMCG market of India. Like Cow's ghee, Dant kanti toothpaste, Ayurvedic medicines, Keshkanti shampoo and soaps are the 5 best selling products for Patanjali according to their contribution in revenue.

Malviya (2017) conducted a study to know the reason of increase in demand for the products Patanjali Ayurved Limited .He concluded that the increase in demand for the products of Patanjali is due to its Ayurvedic products in the market. He also concluded that 77% of household were using Ayurvedic products while earlier this number was just 69%. Thus there is a significant growth in Ayurveda segment of FMCG market in last few months.

Purpose of the Study

The purpose of the study is to find out consumer behavior towards Patanjali products in Jagdalpur city

Objectives of the study

To fulfill the purpose following objectives of the study were formulated:

I. To find out various factors influencing customer to buy products of Patanjali Ayurved Limited.

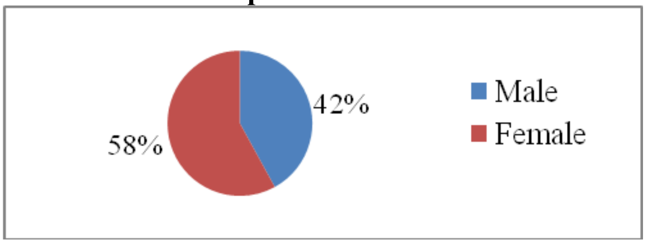
Research Methodology

Research methodology is a blue print which helps researcher to design the concepts, specific construct and variables. With the help of research methodology researcher, methods, proper measurement tools, research techniques researcher want to find out the solution of the problems. The researcher has selected convenience sampling which is a non probability sampling method for the purpose of the study. In total 50 respondents have been sampled in the city of Jagdalpur. Data of the study has been collected from both primary and secondary sources. The major data collected was primary. For the secondary data various published documents, different news papers, magazines, journals and websites have been consulted. The data was collected with the help of a questionnaire. For the collection of primary data researcher has used structured questionnaire and collected the data from 50 respondents. The researcher has used questionnaire as the data collection tool. The questionnaire has been divided into two parts. Part 1 contains demographic information and part 2 contains specific questions related to the topic of the research. In total the questionnaire contains 12 questions.

Data Analysis

This chapter discusses about the Data Analysis and Interpretation pertaining to the research study on Consumer Behavior towards products of Patanjali Ayurved Limited in Jagdalpur City. As the important information's relating to consumer behavior towards products of PAL were collected through questionnaire, thus the collected data has been analyzed and interpretation has been drawn accordingly. The questionnaire consisted of two parts; where part-I discuss about demographic details and Part-II discusses about the key questions pertaining to consumer behavior.

Graph No:1 Gender

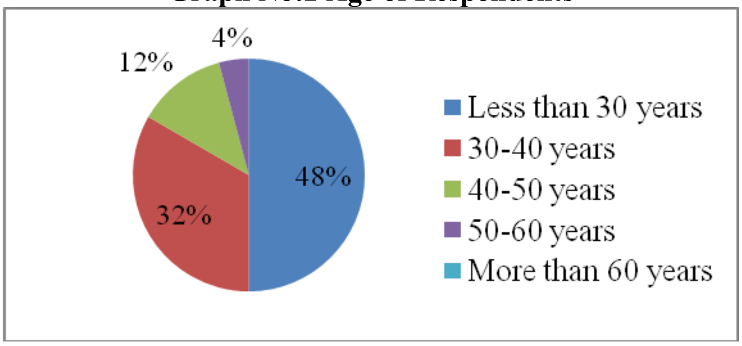


Interpretation of Data

The study is conducted to know the behavior of consumers towards products of Patanjali Ayurved Limited. From graph No.1 it can be interpret that out of 50 respondents 21 respondents are male and 29 respondents were female.

Finding: Study indicates females are more engaged with health care products as compared to male.

Graph No:2 Age of Respondents



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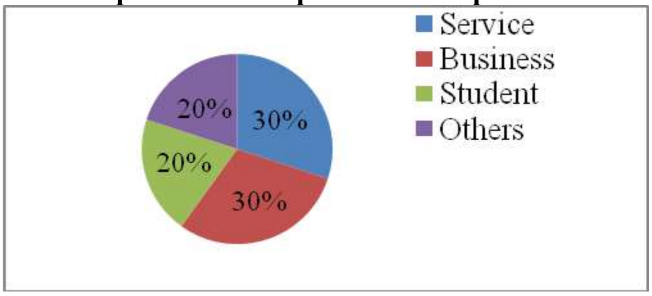
Interpretation of Data

From graph No.2 it can be interpreted that out of 50 respondents, 24 respondents are less than 30 years, 16 respondents are between 30-40 years, 6 respondents are between 40-50 years and 2 respondents are between 50-60 years.

Finding: From the data it is very clear that young people are very curious about their health and want to use health care products.

Graph No: 3 Occupations of Respondents

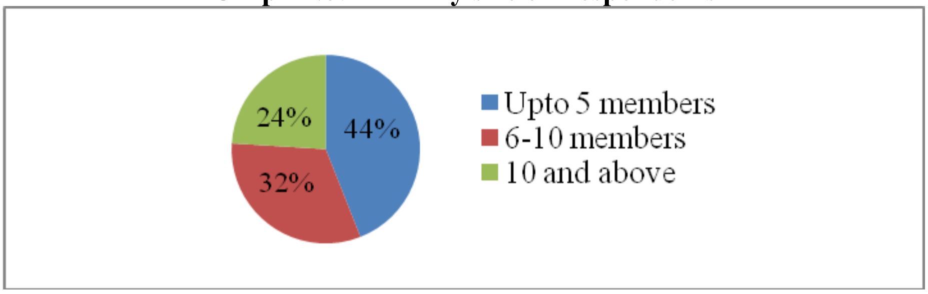


Interpretation of Data

From graph No.3 it can be interpreted that out of 50 respondents, 15 respondents occupation was from service sector, 15 respondents occupation was from business, 10 respondents were student and 10 respondents were others.

Finding: This study indicates that most of the respondents for Patanjali Products are business and service class.

Graph No: 4 Family size of Respondents

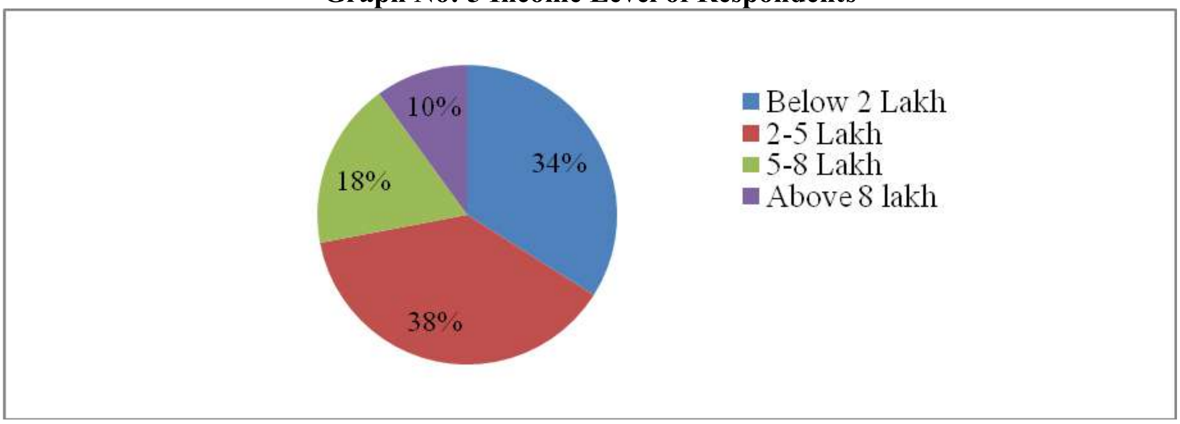


Interpretation of Data

From graph No.4 it can be interpreted that out of 50 respondents, family size of 22 respondents is upto 5 members, 16 respondents are between 6-10 members and 12 respondents are having more than 10 members.

Finding: Study reveals that maximum respondents of Patanjali products have family size of 5 members.

Graph No: 5 Income Level of Respondents



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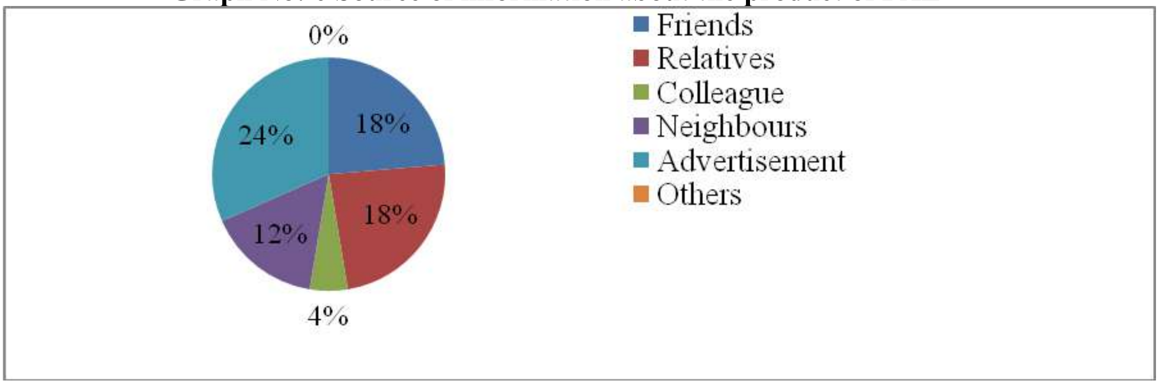
Interpretation of Data

From graph No.5 it can be interpreted that out of 50 respondents, 17 respondents are having annual income below 2 lakh, 19 respondents are having annual income between 2-5 lakh, 9 respondents are having annual income between 5-8 lakh and 5 respondents are having annual income above 8 lakh.

Finding: In this research paper it was found that most of the respondents are in income group of 2-5 lakh.

Graph No: 6 Source of information about the product of PAL

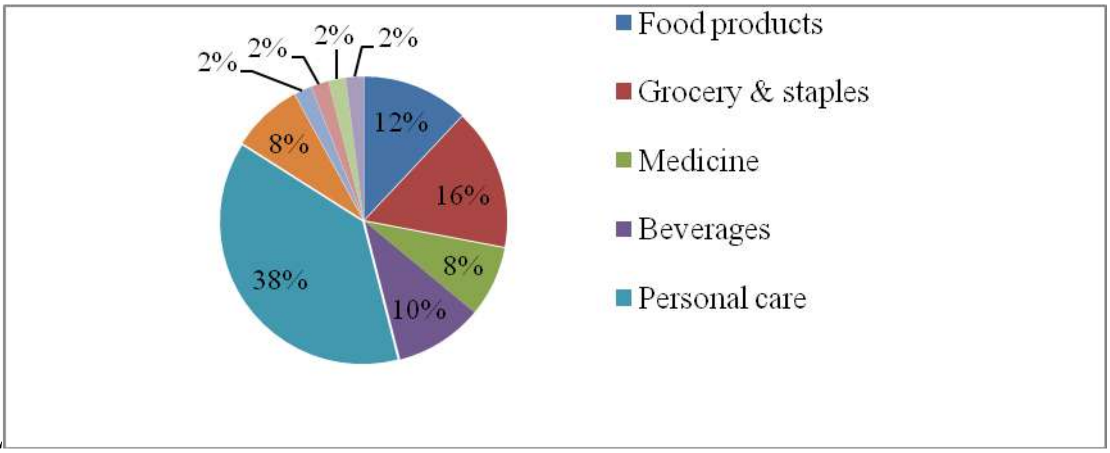


Interpretation of Data

From graph No.6 it can be interpreted that out of 50 respondents, 9 respondents got information from friends, 9 respondents got information from relatives, 2 respondents got information from colleague, 6 respondents got the information from neighbours and 12 respondents got information from advertisement about the product of Patanjali Ayurved Limited.

Finding: It was found that advertisement being the most important source of information for Patanjali products.

Graph No: 7 Consumers Preference for Products of PAL



Interpretation of Data

From the above graph no.7, researcher can say that out of 50 respondents, 6 respondents prefer food products, 8 respondents prefer grocery & staples, 4 respondents prefer medicine, 5 respondents prefer beverages, 19 respondents prefer personal care, 4 respondents prefer households, 1 respondent prefer medicine & personal care, 1 respondent prefer food products and grocery & staples, 1 respondent prefer food products, personal care and households and 1 respondent prefer food products and medicine.

Finding: Research shows that most of the respondents use personal care products of Patanjali.

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Conclusion

The main motive of the study aimed to find out consumer behavior towards Patanjali products in Jagdalpur city where sample size is 50. Primary data is used in this study. Findings indicate that gender age and other factors have influecial role in buying of Patanjali product in Jagdal pur city.

Suggestion

On the basis of findings researcher can suggest that brand extensions need to be addressed by using different marketing strategies as in majority of the cases there exists valuable difference among the respondents belonging to various demographic factors.

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Unemployment And Digital Era : A Study

Dr. Sanjay Dhanvijay
Associate Professor Arts, Commerce & Science College, Arvi, Wardha Dept. of Commerce R.T.M. Nagpur University, Nagpur. (India) ,Mob No. 9422844811,Email ID: sanjaydhanvijay@gmail.com

ABSTRACT

This essay represents the collective vision of a group of scholars in vocational psychology who have sought to develop a research agenda in response to the massive global unemployment crisis that has been evoked by the COVID-19 pandemic. The research agenda includes exploring how this unemployment crisis may di er from previous unemployment periods; examining the nature of the grief evoked by the parallel loss of work and loss of life; recognizing and addressing the privilege of scholars; examining the inequality that underlies the disproportionate impact of the crisis on poor and working class communities; developing a framework for evidence-based in-terventions for unemployed individuals; and examining the work-family interface and un-employment among youth.

Keywords:*UnemploymentPrecarious workWork-family interfaceInequalityYouth unemploymentCOVID-19Unemployment interventions*

Introduction :

This essay reflects the collective input from members of a community of vocational psychologists who share an interest in psychology of working theory and related social-justice oriented perspectives (Blustein, 2019; Du y, Blustein, Diemer, & Autin,2016). Each author of this article has contributed a specific set of ideas, which individually and collectively reflect some promising directions for research about the rampant unemployment that sadly defines this COVID-19 crisis.

Our e orts cohere along several assumptions and values. First, we share a view that unemployment has devastating e ects on the psychological, economic, and social well-being of individuals and communities (Blustein, 2019). Second, we seek to build on the exemplary research on unemployment that has documented its impact on mental health (Paul & Moser, 2009; Wanberg, 2012) and its equally pernicious impact on communities (International Labor Organization, 2020b). Third, we hope that this contribution charts a research agenda that will inform practice at individual and systemic levels to support and sustain people as they grapple with the daunting challenge of seeking work and recovering from the psychological and vocational fallout of this pandemic.

The advent of this period of global unemployment is connected causally and temporally to considerable loss of life and illness, which is creating an intense level of grief and trauma for many people. The first step in developing a research agenda for un-employment during the COVID-19 era is to describe the nature of this process of loss in so many critical sectors of life. A major research question, therefore, is to what extent does this unemployment crisis vary from previous bouts of unemployment which were linked to economic fluctuations? In addition, exploring the role of loss and trauma during this crisis should yield research findings that can inform psychological and vocational interventions as well as policy guidance to support people via civic institutions and communities.

1. Recognizing and channeling our own privilege.

In Joe Pinker's (2020) Atlantic essay entitled, “The Pandemic Will Cleave America in Two”, he highlights two distinct experiences of the pandemic. One is an experience felt by those with high levels of education in stable jobs where telework is possible. Lives are now more stressful, work has been turned upside down, childcare is challenging, and leaving the house feels ominous. The other is an experience felt by the rest of the working public – those who cannot work from home and thus are putting themselves at risk every day, whose jobs have been either lost or downsized, and who are wondering not only if they will catch the virus but whether they have the means and resources to survive. As psychologists and professors, the vast majority of “us” (those writing this essay and thosereading it) are extremely fortunate to be in the first group. The pandemic has only served to exacerbate the extent of this privilege. Given our relative position of power, what are ways we can change our research to be more meaningful and impactful to those outside of our bubble? We propose

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that the recent work on radical healing in communities of color – where the research is often done in collaboration with the participants and building participant agency is an explicit goal - can inform our path forward (French et al.,2020; Mosley et al., 2020). Work has always been a domain where individuals experience distress and marginalization. However, in the current pandemic and into the unforeseeable future, this will only exponentially increase. Sure, we can do surveys about people's experiences and provide incentives for their time. And of course qualitative work will allow us to more directly connect with participants and hear their voices. But what is most needed is research where participants receive tangible benefits to improve their work lives. We, as privileged scholars, need to think about how we can use our expertise in studying work to infuse our studies with real world benefits. We see this as occurring on a spectrum in terms of scholars' time and resources available – from information sharing about resources to providing job-seeking or work-related interventions. In our view, now is the time to truly commit to usingwork-related research not just as a way to build scholarly knowledge, but as a way to improve lives.

2. Inequality and unemployment.

Focusing research e□orts on real-world benefits means acknowledging how the COVID-19 pandemic has exposed and exacerbated existing inequities in the labor market. Millions of workers in the U.S. have precarious jobs that are uncertain in the continuity and amount of work, do not pay a living wage, do not give workers power to advocate for their needs, or do not provide access to basic benefits (Kalleberg, 2009). Power and privilege are major determinants of who is at risk for precarious work, with historically marginalized communities being disproportionately vulnerable to these job conditions (International Labor Organization, 2020a). In turn, people with precarious work experience chronic stress and uncertainty, putting them at risk for mental health, physical, and relational problems (Blustein, 2019). These risk factors may further worsen the e□ects of the COVID-19 crisis while simultaneously exposing inequities that existed before the crises.

The COVID-19 pandemic is an opportunity for researchers to define and describe how precarious work creates physical, relational, behavioral, psychological, economic, and emotional vulnerabilities that worsen outcomes from crises like the COVID-19 pandemic (e.g., unemployment, psychological distress). For example, longitudinal studies can examine how precarious work creates vulner-abilities in di□erent domains, which in turn predict outcomes of the COVID-19 pandemic, including unemployment and mental health. This may include larger scale cohort studies that examine how the COVID-19 crisis has created a generation of precarity among people undergoing the school-to-work transition. Researchers can also study how governmental and nonprofit interventions reduce vulnerability and bu□er the relations between precarious work and various outcomes. For example, direct cash assistance is becoming increasingly popular as an e□cient way to help people in poverty (Evans & Popova, 2014). However, dominant social narratives (e.g., the myth of meritocracy, the American dream) blame people with poor quality work for their situations. Psychol-ogists have a critical role in (a) documenting false social narratives, (b) studying interventions to provide accurate counter narratives (e.g., people who receive direct cash assistance do not spend money on alcohol or drugs; most people who need assistance are working; Evans & Popova, 2014), and (c) studying how to e□ectively change attitudes among the public to create support for e□ective interventions.

3. Work-family interface.

Investigating the work-family interface during unemployment may appear contradictory. It can be argued that because there is no paid work, the work-family interface does not exist. But 'work' is an integral part of people's lives, even during unemployment; for example, working to find a job is a daunting task that is usually done from home. Thus, the work-family interface also exists during unemployment, but our knowledge about this is limited. Our current knowledge on the work-family interface primarily focuses on people who work full-time and usually among working parents with young children (Cinamon, 2018). As such, focusing on the work-family interface during periods of unemployment represents a needed research agenda that can inform public policy and scholarship in work-family relationships.

The rise in unemployment due to COVID-19 relates not only to the unemployed, but also to other family members. Important research questions to consider are how are positive and negative

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feelings and thoughts about the absence of work conveyed and co-constructed by family members? What family behaviors and dynamics promote and serve as social capital for the unemployed and for the other members of the family? Do job search behaviors serve as a form of modeling for other family members? What are the experiences of unemployed spouses and children, and how do these experiences shape their own career development? These issues can be discerned among unemployed people of di erent ages, communities, and cultures.

Several research methods can promote this agenda. Participatory action research can enable vocational researchers to be proactive and involved in increasing social solidarity. This approach requires mutual collaboration between the researcher and families wherein one of the parents is unemployed. By giving them voice to describe their experiences, thoughts, ideas, and suggested solutions, we a rm inclusion of the individuals living through the new reality, thereby conveying respect and acknowledgment. At the same time, we can bring ideas, knowledge, and social connections to the families that can serve as social capital. In addition, longitudinal quantitative studies among unemployed families that explore some of the issues noted above would be important as a means of exploring how the new unemployment experience is shaping both work and relationships. We also advocate that mean-ingful incentives be o ered to participants in all of these studies, such as online job search workshops and career education inter-ventions for adolescents.

4. Strategies for dealing with unemployment in the pandemic of 2020.

Forward-looking governments and organizations (such as universities) should begin thinking about how to deal with the im-mediate and long-term consequences of the economic crisis created by COVID-19, especially in the area of unemployment. Creating meaningful interventions to assist the newly unemployed will be di cult because of the unprecedented number of individuals and families that are a ected and because of the diverse contextual and personal factors that characterize this new population. Because of this diversity of contextual and personal factors, di erent interventions will be required for di erent patterns of individual/con-textual characteristics (Ferreira et al., 2015).

In broad outline, a research program to address the diversity of issues identified above could be envisioned to consist of several distinct phases: First, it would be necessary to carefully assess the external circumstances of the unemployed individual's job loss, including the probability of re-employment, financial condition, family composition, and living conditions, among others. Second, an assessment should be made of the individual's strengths and growth edges, particularly as they impact the current situation. These assessments could be performed via paper or online questionnaire. Based on these initial assessments, the third phase would involve using statistical analyses such as cluster analysis to form distinct groups of unemployed individuals, perhaps based in part on the probability of re-employment following the pandemic. The fourth phase would focus on determining the types (and/or combinations) of intervention most appropriate for each group (e.g., temporary government assistance; emotional support counseling; retraining for better future job prospects; relocation, etc.). Because access to specific types of assistance is frequently a serious challenge, especially for underprivileged individuals, the fifth phase should emphasize facilitating individuals' access to the specific assistance they need. Finally, the sixth phase of research should evaluate the e cacy of this approach, although designing such a large research program in a crisis situation requires ongoing process evaluation throughout the design and implementation stages of the research program.

5. Unemployment among youth.

As reflected in a recent International Labor Organization (2020a) report on the impact of the COVID-19 crisis, youth were already vulnerable within the workforce prior to the crisis; the recent advent of massive job losses and growing precarity of work is having particularly painful impacts on young people across the globe. The COVID-19 economic crisis with vast increases in unemployment (and competition between workers) and the probable growth of digitalization may result in a major dislocation of young workers from the labor market for some time (International Labor Organization, 2020b). To provide knowledge to meet this daunting challenge, researchers should develop an agenda focusing on two major components—the first is a participatory mode of under-standing the experience

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of youth and the second is the development of evidence-based interventions that are derived from this research process.

The data gathering aspect of this research agenda optimally should focus on understanding unemployed youths' perception of their situation (opportunities, barriers, fears, and intentions) and of the new labor market. We propose that research is needed to unpack how youth are constructing this new reality, their relationship to society, to others, and to the world. This crisis may have changed their priorities, the meaning of work, and their lifestyle. For example, this crisis may have led to an awareness of the necessity of developing more environmentally responsible behaviors (Cohen-Scali et al., 2018). These new life styles could result in skills development and increased autonomy and adaptability among young people. In addition, the focus on understanding youths' experience, which can encompass qualitative and quantitative methods, should also include explorations of shifts in youths' sense of identity and purpose, which may be dramatically a□ected by the crisis. The young people who are without work should be involved at each step of the research process in order to improve their capacities, knowledge, and agency and to ensure that the research is designed from their lived experiences.

Building on these research e□orts, interventions may be designed that include individual counseling strategies as well as systemic interventions based on analyses of the communities in which young people are involved (for example, families and couples and not only individuals). In addition, we need more research to learn about the process of collective empowerment and critical con- sciousness development, which can inform youths' advocacy e□orts and serve as a bu□er in their career development (Blustein,2019).

6. Conclusion.

The research ideas presented in this contribution have been o□ered as a means of stimulating needed scholarship, program development, and advocacy e□orts. Naturally, these ideas are not intended to be exhaustive. We hope that readers will find ideas and perspectives in our essay that may stimulate a broad-based research agenda for our field, optimally informing transformative in- terventions and needed policy interventions for individuals and communities su□ering from the loss of work (and loss of loved ones in this pandemic). A common thread in our essay is the recommendation that research e□orts be constructed from the lived experiences of the individuals who are now out of work. As we have noted here, their experiences may not be similar to other periods of extensive unemployment, which argues strongly for experience-near, participatory research. We are also advocating for the use of rigorous quantitative methods to develop new understanding of the nature of unemployment during this period and to develop and assess interventions. In addition, we would like to advocate that the collective scholarly e□orts of our community include incentives and outcomes that support unemployed individuals. For example, online workshops and resources can be shared with participants and other communities as a way of not just dignifying their participation, but of also providing tangible support during a crisis.

In closing, we are humbled by the stories that we hear from our communities about the job loss of this pandemic period. Ourauthorship team shares a deep commitment to research that matters; in this context, we believe that our work now matters more than we can imagine.

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Role Of The Stock Market And Its Emergence In The Indian Financial System In A New Economic Scenario

Miss. Komal Kedar Rathi , Dr. D.N.Padole

Research scholar,Associate Professor VMV Comm,JMT Arts and JJP Science VMV Comm, JMT Arts and JJP Science College, Wardhman Nagar, Nagpur

Abstract:

The stock market is not a gambling house, it is an economic barometer to measure the progress of the economy. A financial market can be understood as a platform where money is transacted between buyers and sellers. This transaction depends on many factors. In which factors like supply-demand, interest, and dividend are involved. In terms of study, the financial market is divided into two parts – the first money market and the second capital market. That part of the financial market of an economy that provides long-term funds, usually for one year or more, is known as the capital market. There are several components of this market which include All India Institutions, Investment Institutions, Banks, and Stock Exchanges. Just as facilities like roads, rail traffic, electricity, and water are most important for the development of a country, similarly the stock market is necessary for the development of the country's industries. Capital is required to run the industrial business. And industrial business get this capital from the stock market. Every common man can participate in the biggest industry through the share market. With such participation, he can become a sharer in the profits of big industries. That part of the financial market from where long-term capital is raised through shares, securities, bonds, and mutual funds is called the securities market. That is, the securities market is a part of the capital market itself. In this research paper, the role of the stock market in a new economic scenario and its emergence in the Indian financial system has been studied.

Keywords: Indian Financial System, Capital Market, Stock Market, Finance Market, Money Market, Securities

Data Collection Method Used for Research:

The research paper has depended on secondary data.

Objective of Research:

- To study the role of the stock market in a new economic scenario.
- To Examine the impact of stock market on the economy.
- To study the stock marketemergence in the Indian financial system

Introduction:

The Securities and Exchange Board of India i.e. SEBI does the work of making rules and regulations for the security market in India. It was established on 12 April 1992 under the SEBI Act 1992. The headquarters of SEBI is located in Mumbai and its regional offices are located in New Delhi, Kolkata, Chennai, and Ahmedabad. There are many types of transactions carried out in the securities market which include swaps, reverse swaps, futures trading, and insider trading. Although all these transactions are also illegal, such as insider trading. Every security market has two complementary markets for raising capital, which is called the primary market and the secondary market. Instruments such as shares or bonds are often issued to the market to raise capital. When investments are made by buying these instruments directly, it is called trading in the primary market. For example, if a person or institution buys shares of a company directly from the company itself, it is called a primary market transaction, and such a buyer is known as a 'primary shareholder'. When the primary shareholders buy and sell shares among themselves or with someone else, it is called the secondary share market. Most of the trading in any security market is done in the secondary stock market only because in the primary market, companies do not sell their shares frequently.

Companies need money to start their business. These companies sell their ownership rights to raise money. This proprietary right can be understood as a share. A stock market is a market where shares of companies can be subscribed and sold. The Securities Contracts (Regulation) Act, of 1956 defines a stock exchange. The world's oldest stock exchange was started in the year 1631 in Belgium.

The Indian securities market has undergone major changes since the early 1990s. Several reforms have been initiated in the direction of liberalization, regulation, and development of the stock market to increase market efficiency, and transparency, control unfair business practices and make the Indian securities market of international standard. But since the beginning of the 1990s, many cases of misbehavior in the market have also been making headlines in the newspapers. These episodes have severely disrupted the main functions of the market. These are constrained functions – efficiency of pricing, and intermediation between households saving and businesses raising money for investment projects. Many experts believe that had it not been for the crisis, reforms such as the establishment of the National Stock Exchange (1993) and the adoption of variable coordination and trading of derivative deposits (2001) may not have been possible in the country.

The intending firms were required to obtain prior permission from the Central Government regarding the size, type, and price of the issue of capital formation as per the Issue of Capital (Control) Act, of 1947. But this act was repealed and the Securities Exchange Board of India was established as a new regulator in 1992 for the market-based allocation of resources as per the liberalization clause of 1991. These main responsibilities were assigned to him. These include the protection of the interests of investors in securities (especially small investors), the development of the securities market, and regulation of the securities market. SEBI is entrusted with the task of monitoring not only capital-issuing corporations but also individuals and institutions involved in all activities of the stock market, such as securities transfers, etc. Not only this but it has also been entrusted with the Companies Act, concomitant and residuary powers. SEBI also has the responsibility of administering the securities market-related provisions of the Companies Act.

The role of the stock market in the development process is well-known and accepted by all. The presence of a developed stock market is considered an indicator of economic growth for several reasons. Because they provide another means of mobilizing internal savings apart from banks and financial institutions, the stock market's policy of allocation of capital through the market ensures improved investment productivity; and improves the level of discipline of managers by creating a market for corporate control. The most concise indicator of the development of a free market is the market capitalization ratio. It is also called the measure of the 'size' of the stock market. Its economic significance is that a higher market capitalization ratio is indicative of raising more capital and diversifying its risks. Another big indicator is the liquidity of the market. It is measured by the ratio of price to regulated price and the ratio of total transactions. The price-regulated ratio is the ratio of the value of shares bought or sold in the stock market to GDP, while the total transaction ratio is the ratio of the gross value of shares exchanged to the market capitalization ratio. Another great stock market indicator is its volatility. It is the name given to the movement of assets in the stock market and it provides important signals for the development of the market.

To invest money in the share market, a common customer has to open his account in a bank providing D-mat service. This account is called a D-mat account. Nowadays many banks like ICICI, HDFC, State Bank of India, etc. provide D-mat service. At present, there are 23 stock exchanges in India, out of which 5 are at the national level and the rest are at the regional level. BSE is the oldest stock exchange in India and Asia. It was established on July 9, 1875. Its index is called Sensex, in which 30 companies are included. India's second stock exchange. The bright scenario of the Indian stock market is beneficial for investors, industry-business, and the government. We can say that the stock market is playing a very effective role in reviving the industry-business sector of the country devastated by Covid-19.

Role of the Stock Market and its Emergence in the Indian Financial System in a New Economic Scenario:

The stock market is playing a very effective role in reviving the industry-business sector of the country devastated by Covid-19. Investors will move fast to take advantage of the stock market. You may wonder why it is important to study GDP when we invest in the stock market. Whenever we say that an economy is growing at the rate of X percent, it means that the GDP of that country is growing at that rate. The stock market primarily depends on the performance of the listed companies. However, the domestic and global economic conditions of a country play a significant role in the

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demand for a company's goods and services, thus affecting its profitability and growth. There is a correlation between GDP and the stock market. Whether or not GDP is a reliable gauge of the stock market has been a question that has troubled economists for centuries.

Before we go ahead, we should know that GDP is mainly driven by spending and investment. When consumption is high, people are buying things which indicate that there is money in hand which helps to increase GDP. Business spending includes purchases made by a company which is a positive indicator for both GDP and the stock market. When exports exceed imports, the country is less dependent on foreign goods and therefore domestic companies are flourishing, leading to higher earnings for domestic companies. The government will spend only when they have a surplus i.e. money and when they do so they boost the economy which gives a cushion to the beneficiaries to expand their operations resulting in higher profits and thus the stock price. Prices may be higher. If there is a rapid rise in the stock market, then you are expected to strengthen the economy in the future. The GDP figures will rise first or the stock market will rise first. Since the stock market is a leading indicator, you will see the effect in the stock market first. On the other hand, GDP being a lagging indicator will follow the trend.

FIIs are foreign institutional investors based in a country other than the country in which they are investing. These FIIs are usually large investors including pension funds, mutual funds, insurance companies, hedge funds, etc. Since they can invest in large amounts, FIIs can influence market trends. These investments also act as a catalyst for price movement if FIIs take a position. Conversely, it can also trigger a selloff if FIIs exit the particular stock.Foreign Direct Investment (FDI) is an investment made by foreign companies in India to set up or start a business. They open an establishment in the country on their own or collaborate with a local partner to do business. These investments are by the policies of the government related to that sector. India is a huge and attractive market and attracts a lot of interest and FDI.

The stock market takes indications from the health of the economy. Economic indicators help investors to understand the state of the economy so that they can manage their investments as per the current scenario. Certain leading indicators also help investors forecast the next phase of the business cycle. Any broad stock market index that covers most sectors and companies can be a good predictor of a country's economic condition. The GDP of a country depends on the production output of the companies and the stock index is a good representation of these companies. This is why a broad stock index is a good indicator of the health of an economy. GDP, PMI, IIP data, etc are highly positively correlated with the stock market. In contrast, interest rates, unemployment data, inflation, etc. are extremely negatively correlated with the stock market.

Major changes have taken place, especially in the secondary market. Advanced technology and computer board-based transactions have modernized the stock exchange system. The Indian securities market appears overstated relative to the level of economic development of the country in terms of the number of listed companies and the size of the market capitalization. The number of listed companies increased from 5,968 in March 1990 to over 10,000 in May 1998. In the same period, the market capitalization has also increased by 11 times. In the financial year 1990-91, the market capitalization of the Bombay Exchange was Rs 90,836 crore. This amount reached Rs.61,65,19 crore in 2009-10. Similarly, the capitalization in National Stock Exchange also increased from Rs.3,63,350 crore in 1994-95 to Rs.60,09,173 crore in 2009-10. In the same period, the annual average share price of Bombay's SENSEX increased from Rs.1050 crores to Rs.15585 crores in 2009-10. But S&P C.N.X. The annual average share price of Nifty companies has increased from just Rs.364 to Rs.4658 crore. The annual business of Bombay Exchange has jumped from Rs.15,78,856 crore in 2007-08 to Rs.1103467 crore in 2010-11, while the annual business figures of National Exchange have also increased from Rs.3551038 crore to Rs.3577414 crore. Similarly, the net investment in the Indian capital market has increased from Rs.62583.56 crore to Rs.110718.27 crore in the year 2012-11. Where a total of 5,04,149 shares were traded in the year 2002-02. At the same time, these figures also reached 33,42,947 in 2009-10. The value of shares transferred to the stock exchange also increased from Rs.1,36,225 crore to Rs.12,28,612 crore in 2009-10.

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Presently, in the picture of the stock markets of developing countries around the world, the condition of the Indian stock market is looking excellent. The bright scenario of the Indian stock market is beneficial for investors, industry-business, and the government. Last year on March 23, 2020, the 30-share Sensex of the Bombay Stock Exchange (BSE) appeared on the slope with 25,981 points, it was successful in touching the level of 54,717.24 points on August 5, 2021. In the first four months of the current financial year 2021-22 i.e. April to July, the stock market investors have earned Rs 31 lakh crore. At present, there is a lot of competition to bring IPO into the stock market. The participation of retail investors in the IPO has increased by 25 percent. Over 1.4 crore D-mat accounts have been opened in the last financial year. The number of D-mat accounts in the country has crossed 65 million. It is important to note that for the first time in a decade, the total market capitalization of India's listed companies has exceeded the country's gross domestic product (GDP) due to the rally in the stock market. In this context, the ratio of market capitalization to GDP has crossed 100 percent. Even in developed countries like America, Japan, France, Britain, Hong Kong, Canada, Australia, and Switzerland, this ratio is more than 100 percent.

There are many reasons for the rapid progress of the stock market in the country. Investors are seeing that the growth rate of the Indian economy can reach eight to nine percent in the year 2021-22 amidst the challenges of Corona. At the same time, central banks around the world, including India, have infused a large amount of capital into the market. As such, interest rates are historically low at this time. Investors are also seeing that the returns on Fixed Deposits (FDs) are lower than the returns on the stock market amid a currency spread of over six percent. Investor sentiment has been boosted by prospects of India's good relations with the US. Due to the strengthening of confidence in the Indian economy, foreign investors are taking a lot of interest in investing more capital in the Indian stock market. On the other hand, in the budget of the current financial year, a big strategic step taken by the government regarding the growth rate and increase in revenue has also given a big boost to the stock market. The Finance Minister has estimated a 22 percent increase in direct taxes and GST in the budget. The target of disinvestment proceeds has been kept at Rs 1.75 lakh crore. The Finance Minister has not hesitated to expand the fiscal deficit to 6.8 percent of GDP.

Statistics show that by the financial year 2021-2022, there were only nine crore D-mat accounts in India, which is very less compared to the population. In the modern era, the stock market is a great center for wealth creation. It is a major form of wealth that has created wealth worth trillions of rupees all over the world including in India. Only the Indian stock market has a market capitalization of more than Rs 2.75 lakh crore, which means it has created such a huge amount of wealth. The stock market has created many times more wealth than India in developed nations like America, Japan, European nations, etc.

Conclusion:

The role of shares in wealth creation and capital formation is continuously increasing but a large population in our country is not getting its benefits. Such an environment should be created so that more and more people can get its benefit. Our country is moving fast on the path of economic reforms. But the irony is also coming to the fore that not all classes of people are getting its benefits. The stock market has the potential to do so, but it is still in its underdeveloped stage in our country. A very little part of the nation's population is aware of shares, due to which they can invest in them very little. Undoubtedly, there is a possibility of the rapid growth of the stock market in India at this time, but the way the sale of shares of long-dormant companies has increased rapidly amid Covid-19, the risk in the stock market has increased. has also increased. Retail investors will have to take care of this the most. In such a situation, it is necessary to keep every step in the stock market carefully. Along with the height of the stock market, it is also necessary to take care of the interests of small investors and the safety of their capital. SEBI's role has to be made more effective for the government to move forward on the path of strengthening the stock and capital market.

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Sustainable Development and Health Values

Dr. Ms. Lalita Punnya

Associate Professor and Head, Department of Physical Education Yashoda Girls' Arts and Commerce College, Nagpur ,8378099982, li.punnya@gmail.com

The pleasure of the main values of health is one of the fundamental rights of every human being without any difference of race, religion, and political belief, economic or social condition. The full enjoyment of the right to health is critical for the enjoyment of other human rights. Good health is thus an end in itself and it plays an integral role in human capabilities and well-being. Health is central to the three dimensions of sustainable development. Development benefits from and contributes to health. It serves as a significant benchmark for the goals of people-centered, rights-based, inclusive, and equitable development. Human well-being, which includes material, psychological, social, cultural, educational, occupational, environmental, political, and personal security dimensions, is important both as a goal in and of itself. These aspects of well-being are linked and dependent on one another. Through their effects on educational success and skill acquisition, labor productivity and decent employment, increased savings and investment, the demographic transition, and impacts on the earth's ecosystem, investments in health, particularly prevention of ill health, improve a country's economic output. The health of girls and women is changing, and while some areas have recently seen significant improvements, others still need to be addressed to meet the needs. The paper focuses on the need for women's health has extended beyond just maternal and child health. Health issues affecting women due to their ecology, gender, and other social factors are included in the inclusive concept of women's health that is based on a life-course style.

Keywords: Health, Sustainable development, Human well-being, environment

Introduction:

The ability to enjoy the rights to work and education, which are, in turn, essential to the enjoyment of an adequate standard of living, is determined by health. At the same time, poverty-related structural disadvantages such as lack of clean water, sanitation and decent work, hinder the prevention and fuel the spread of diseases. Countless people, particularly those with social disadvantages and marginalized and vulnerable populations, face steep economic, environmental, and social barriers to healthy living on a daily basis. Also, human health relies on ecosystem health. Protecting and improving ecosystems can be an effective means of permanent control over vector-borne diseases, and maintaining biodiversity will maintain the source of traditional and western medicines.

Strategies:

By affecting the social, environmental, economic, cultural, and political determinants of health, including occupational health, development policies and programs can improve or harm both individual and population health. Therefore, it is crucial to take into account the health implications of policies and programs in all sectors, such as energy, transport, and agriculture, as well as as part of larger policies concerning labor rights, trade liberalization, intellectual property, and environmental protection, among others, in order to protect and promote public health. Therefore, the state of one's health can be a sign of how well development and industry policies are helping people and their families in real and understandable ways. A thoughtful choice of health indicators can also aid in identifying and enhancing connections between investments in human development, human rights protection and policies.

Emerging Challenges:

The few lessons that may be drawn from the corporate sectors' adoption of efforts to address health issues are as follows: A notable improvement in health outcomes in low- and middle-income countries was made as a result of raising the profile of global health to the highest levels of politics, mobilizing civil society, increasing some national budgets and overall development assistance for health, and raising national budgets in general. Worldwide, the number of infant fatalities is rising, the proportion of deliveries attended by a trained health professional has substantially grown, and the number of maternal deaths has decreased. With political support, strategic cost-cutting and people-centered policies and programs, significant progress can be made on apparently rigid health issues. Many of these issues are a result of ongoing disparities in access to healthcare both within and outside the region. For example, children's health, women's and adolescents' sexual and reproductive health, HIV and AIDS, and other infectious diseases continue to be dominant priorities in few areas and among the poor and other disadvantaged groups including higher income. For high-and middle-income countries, the most important risk factors are those associated with non-communicable diseases. Achieving equity, equality and eliminating discrimination in health requires strategic goal and target-setting and sound implementation, monitoring, evaluation and reporting systems.

Significant Challenges:

Further progress in improving health and well-being will require reducing health inequities not only through health system strengthening and financial protection but also through integrated approaches for health and other Sustainable Development Goals (SDGs). The emerging challenges continued progress toward the health goals faces at least more significant challenges. The first thing we sees that the age structures such as the lower income groups have unprecedented numbers of people, and proportions of their populations, under age 24. With appropriate savings these young people can be a fundamentally find the resources for the development. In difference, population aging is a feature in high and middle income countries which will increase over the next decades. Aging, combined with unsustainable patterns of consumption and lifestyle, is leading to a massive increase in the burden including heart and chronic respiratory disease, strokes and diabetes and others. This is one of the foremost challenges to sustainable development in the 21st century.

All we need to develop effective ways to prevent and end tobacco use, misuse of alcohol and other substances, obesity and physical inactivity as well as unsafe sex and widespread violence against women and girls, mental health problems and occupational diseases. These health issues require health policies, programs and services to give far more attention to the young, particularly adolescents; develop more effective and participatory approaches to prevention of health risks; empower adults, especially older people, to manage chronic diseases; and strengthen health systems, and national and global strategies and policies, to prevent and manage both communicable and non-communicable diseases and conditions simultaneously.

It will be necessary to reduce health inequities through integrated methods for health and other Sustainable Development Goals in addition to enhancing the health system and financial protection (SDGs). Continued progress towards the health goals faces new hurdles that are at least more serious. The first thing we notice is the unprecedented proportion of people under 24 in certain age groups, such as those in lower socioeconomic groupings. These young individuals can basically find the resources for development with the right savings. In contrast, population ageing is a trend that will worsen during the following decades in high and middle income countries. Aging, along with unsustainable consumerism and lifestyle trends, is causing

The second challenge is that a new approach to acting in the health sector is required if we are to provide health and wellness not only for each stage of life but also for every person throughout their lifetime, regardless of their socioeconomic status, level of health, gender, and other characteristics. Large populations are migrating to urban regions, where they suffer a shortage of infrastructure and services. In the Nagpur region, one-third of the urban population and more than 60% of city residents reside in slums, where they are subject to numerous social and environmental health concerns such congestion, lack of water and sanitation, indoor and outdoor air pollution, and Additionally, it causes regional environmental harm and global climate change, both of which have an impact on future generations' health. According to estimates, air pollution alone results in several million avoidable deaths per year in addition to having an immediate and long-term influence on climate change. According to sources from civil administration, environmental dangers are responsible for about 25% of the world's disease burden.

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Suggestions and Opportunities:

There are many nevertheless possibilities for fitness and development which have now not been explored. A higher nexus between fitness and other feasible sustainable improvement desires along with sustainable strength and transport may want to cope with a number of the key demanding situations, of the changing surroundings. Health systems will want to be strengthened to respond to growing expectancies and moving epidemiological, demographic, and an extensive variety of environmental and social hazard factors. Health funding techniques are hard to make certain identical access for all and to offer safety towards catastrophic health costs by way of individuals and ruinous expenses to countrywide economies. The opportunities increasingly more, new and improved technologies, countrywide, regional, and international connectivity, and citizens' participation in health coverage development and implementation and in quality guarantee and responsibility mechanisms in health and different sectors, provide significant possibilities to fulfill the demanding situations mentioned above.

New technologies such as tele-epidemiology are useful to remotely monitor environmental factors and help in predicting epidemic risks. Also, the role of some industries in Nagpur and also IT Park are playing crucial role in development. The contribution to improve living standards needs to be balanced with acknowledgment of their possible unfavorable impacts on the environment and human health. The most disadvantaged, marginalized, stigmatized, and hard-to-reach populations in all countries should be prioritized. Open targets should be included to significantly reduce socioeconomic, gender, age and other forms of inequity as a matter of priority. Achieving equity and equality requires focused attention not only on inclusion of disadvantaged groups of people such as women, adolescents, elderly, ethnic minorities and migrants, but also to their differentiated health needs.

Priority should be given to the most disadvantaged, marginalized, stigmatized and hard-to-reach populations in all countries. To reduce socio-economic, gender, age and other inequalities, open targets should be added as a priority. Achieving equality and equity requires focused attention not only to the inclusion of disadvantaged groups such as women, youth, the elderly, ethnic minorities and migrants, but also to their diverse health needs.

Liability and Accessibility:

Communities and civil society should participate significantly in the development, implementation and monitoring of health-related goals and objectives. Strengthening national health information systems, population registers and population statistics to the district level and below is an important prerequisite for measuring and improving equality and equity. Access to information is essential for people, especially marginalized groups, to make decisions, access health programs and hold decision makers legally accountable. Regional and global importance should develop goals related to their own starting points and include indicators based on their priority health needs, relevant health determinants and outcomes. Common indicators that all countries use and report on regularly should also be agreed upon, so that progress can be monitored globally as well as between countries and regions. The synergy with other goals and sustainability goals in general are the positive synergy between healthcare and other sectors and avoiding conflicts between the goals and strategies of the field can be achieved by formulating the goals so that their achievement requires political coherence and common solutions in several sectors. Potential health risks from other sectors, such as pollution, climate change, loss of biodiversity and consumption and production patterns, should be considered early in the planning of potential goals and objectives for those sectors.

Gender Rights and Equality:

The same should be done to maximize positive synergies, for example between health and education, especially for girls, or between health and social security systems. Health indicators should be used to measure the results of the Sustainable Development Goals. Considering the contribution of health to sustainable development and the critical importance of the multidimensional background factors of health, a health in all policies approach could be adopted. This approach would recognize that health-related goals fall under other sectoral goals. Such an approach could encourage the inclusion of health risk reduction and health promotion at all stages of life as part of overall

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development policy and thinking. Sustaining such an effort requires norms and standards, action research, documentation and sharing of good practices, evidence-based policy guidance, and improved management skills and capacity. The health of future generations must be protected by providing them with skills and education, by inheriting a clean and biodiversity environment, and by preventing health risks from climate change and other long-term environmental threats. The definition of human rights and gender equality and health-related goals, targets and indicators must be consistent with the protection and realization of all human rights and fundamental freedoms, including gender equality.

Conclusion:

The new agenda should be more ambitious, reinforcing the goals of ongoing initiatives such as: ending preventable maternal and child deaths; elimination of chronic malnutrition and malaria; ensure universal access to sexual and reproductive health services, including family planning; protecting the reproductive rights of women and young people; increase vaccination coverage; ending violence against women and girls, including sexual violence and exploitation, and realizing the vision of a TB-free generation. Ensuring the coverage and availability of general health care is proposed as a central contribution of the health care sector in achieving health goals. To achieve better health outcomes, it is necessary to offer all people affordable, comprehensive and high-quality services that meet basic health requirements and national health priorities. It is also a desirable destination because people appreciate the security and protection it provides. Universal health care and access should cover the entire continuum of care, especially primary health promotion, disease prevention, treatment, rehabilitation and palliation at all stages of life. Such health indicators are used not only to monitor progress towards goals, but also the associated benefits to individuals and populations.

Thus it also helps to find out the necessary changes in the policy to avoid costs to society and enable better health protection. As mentioned above, prioritizing the global health goal is crucial for sustainable development. The health sector certainly needs to address its weaknesses, which include poor governance and weak accountability mechanisms. low status compared to other sectors from the perspective of finance and planning ministries; a serious lack of well-educated, motivated and supported health workers and their unequal distribution within and between countries; and lack of knowledge or skills in many key areas such as quality assurance. In the face of such challenges, progress depends largely on the empowerment of communities and individuals as promoters of their own health and advocates for government. At the same time, innovative mechanisms reduce inefficiency and waste in the industry. In these circumstances, it is imperative that the global health planning advances in order to better react to the region as a whole needs and priorities to play a fully effective role in achieving sustainable health for all.

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Nature has its nurturing hold over Man: An Ecocritical study of fictional works of Mamang Dai

Lavina Keswani
(Research Scholar)
(M.A English, NET)R.S Mundle Dharmpeth Arts
and commerce college

Dr. Manjushree Sar Deshpande
Head of Department, English
R.S Mundle Dharmpeth Artsand commerce college.

Abstract: Northeast India is known as the melting pot of various races, castes, and cultures since it is home to numerous ethnic groups with a range of cultures, languages, and faiths. It is one of the areas of India with the lowest representation. Perhaps the region's scenic surroundings, picturesque geography, and the blending of numerous ethnic groups have resulted in a body of literary writings that is completely distinct from that of the rest of India. The literature in English from the northeastern section of India has been stereotyped, just like the area itself. However, if we conduct a critical analysis of the literary works produced in this region, we will discover that writers like Mamang Dai bring forth a beautiful relationship between nature and the humans of Arunachal Pradesh.Her fictional workshighlight the distinctive environment of Arunachal Pradesh by fusing history, myth, tradition, memory, and fiction. Theory of ecocriticism can be used to study the conflict between tradition and modernization, the decline of traditional values during colonial times, as well as the ecological degradation of the land. In order to preserve the identity of tribal societies in the modern world of globalization and modernization, her novels promote the restoration of the long-standing relationship between man and nature.

Keywords: Mamang Dai, ecocriticism, tradition, modernism, Adi tribe, Arunachal Pradesh.

"The Black Hill", a 2017 work by Itanagar, Arunachal Pradesh-based author Mamang Dai, earned the Sahitya Academy Award. She is a journalist who has cleared her UPSC exam and loves to write. The deep flavor of the Adi culture of Arunachal Pradesh, their folklore, oral history, and vibrant tribal cultures can be experienced by her readers.

She was hired as a program officer at World-Wide Fund for Nature, where she worked on the program for the Eastern Himalayas Biodiversity Hotspots. She once served as the Itanagar Press Club's secretary. She is at present in charge of the Arunachal Pradesh Union of Working Journalists (APUW). She was chosen to serve on the Arunachal Pradesh state public service commission in 2011. Mamang Dai was also awarded the Padma Shri award in 2011.

Over the past three decades, ecocriticism has become "a worldwide emergent movement." Its nature and scope are still being developed by scholars. William Rueckert initially used the word "ecocriticism" inhis essay "Literature and Ecology: An Experiment in Ecocriticism" which was published in1978.The Greek root word "oikos" is where the word "eco" originates. This etymologically refers to the home or the earth, while the word "logy" derived from "logos" signifies reason. Together, they represent criticism of the environment and the home asliterature, is shown. Rueckert says that ecocriticism uses ecology or incorporates ecological ideas into the study of literature. Also defined by Lawrence Buellecocriticism "as an investigation into the connection between literature and theconducted in an effort to uphold environmentalists' valuespraxis"(The Environmental Imagination,430) (The Environmental Imagination,430).

Further ecocriticism is not merely a study of nature; it has set itself apart from the traditional natureby its dedication to the natural environment and ethical stance, followed byestablishing a link between the human and non-human worlds.According to Joseph Wood Krutch, ecocriticism writings are not about trees, animals, or birds; instead,is about his relationship to them.

According to Cheryl Glotfelty in What is Ecocriticism?, "Eccritics encourage others to think seriously about the relationship of humans to nature, about the ethical and aesthetic dilemmas posed by the environmental crisis, and about how language and literature transmit values with profound environmental implications" ...

"The colour green always soothed him. It was the colour of escape and solitude." ― Mamang Dai, Legends of Pensam

This paper aims to analyse how urbanisation, globalization, and contemporary government-sponsored development projects are rapidly altering and simultaneously destroying Adi tradition, culture, and belief systems, as well as the biodiversity and ecological balance of the Siang valley in Arunachal Pradesh. The current essay will also attempt to determine how the Adi tribe's homeland in Arunachal Pradesh came to be the scene of a battle between two dominant cultures—the modern Indic culture and the traditional Adi culture. Dai is attempting to unearth and recover the extensive cultural legacy and mythologies of the Adis through the nineteen tales in The Legends of Pensam.

In The Legends of Pensam, she achieves this by fusing the community's history and myths with its tradition and ancient rituals. Nineteen stories total in the book, are divided into four sections **called "a diary of the world","a question of time," "daughters of the village," "songs of the rhapsodist," respectively**. This fictional piece depicts the Adis' transformation from their originaltoward modern culture and demonstrates how these people grieve their loss of them. They work hard to balance their tradition, ethnic way of life, and the modern world at the same time.

The state of the environment, animism, and superstitious beliefs form the foundation of the Adi community's society. The "shamans" of this belief system converse with the spirits in accordance with their belief system, which is firmly entrenched in the ecology of the country.

As a result, Pensam creates a depiction of the Adis' world based on their coexistence with the natural andthe realms of the paranormal. The ongoing infrastructure and growth initiatives of theGovernment efforts to connect the Adi's homeland with the outside world are not just obstructiveaffecting the natural balance and the land's ecology, but also progressively putting an end to their accustomed lifestyles.

Like the majority of tribes inhabiting the central belt of Arunachal, "The Adis practice an animistic faith that is woven around forest ecology and co-existence with the natural world. "Under the malign influence of spirits anything can happen in a life – persons get unnaturally killed in hunting expeditions, children suffer strange illnesses, houses get gutted in fire, husbands go astray. These things happen because certain rites are not performed by people of this or earlier generation. Shamans play an influential role in the tribe as they have the power to exorcise the bad spirits and restore some order in life.

In Mamang Dai's book, 'The Sky Queen', NyanyiMyete, **"the beautiful lady who floated inone day from the deep boundless heavens,"** is the subject of the tale "The Sky Queen". She was the Kojum-celestial Koja's aunt, and the great flood wiped out their entire empire. Kojum-Koja was a prosperous civilizationand held numerous festivals. They went fishing and hunting before each event. 'Pi-me was one such celebration when everyone went fishing and caught a large fish-like animal. The seniorsrecognized it as Biri AngurPotung, the powerful and formidable ruler of SiliSidong, the Water Kingdom, and the son of Biri Bote. However, the youthful Kojum-Koja disregarded the advice of his elders and ate nonetheless.They ate it up and everyone became sick. The Bat, Koru Ponsung, was present for all that occurred in for many days, the fight raged on with theKojum-Koja was defeated by the Kingdom of Water using storm, rain, water, and flood. As a result, the entire Kojum-Koja civilization was submerged. Only NyanyiMyete remained after the destruction.remains to spread the melodies, dances, and vanished glory of Kojum-Koja. She was a lotbeing kind to everyone, from humans to animals, birds, and insects. She created people. "Sing and dance and enjoy yourself." As a result, she is remembered as being attractive by the Adis.who descended from the skies and observe NyanyiMyete annually.

The stories combine elements of tradition and fantasy. Each story carries a genuine Adi spirit that is distinct and celestial, whether it is about NyanyiMyete, the formation of the earth, the names of Adi gods, or the history of how a river came to be. The storyteller keeps in mind that a child reader will be drawn in initially when turning a folktale into a fairy-tale. As a result, each and every component is presented in an appropriate and understandable way. The preservation of a particular region's folktales aids in identifying and establishing the national identity of its inhabitants. Folktales' depictions of race and nation are given a different perspective by the mythical components they contain. The Adiswas formerly Animists who thought God was present in nature.

Once Upon a Moontime, Dai's second picture book, is firmly rooted in the North Eastern tribal folkloric tradition. The first story focuses on the creation myth. In the tale "How the World Was Made," it is stated that "Everything was water before the earth was created," and that "two brothers in the sky" "thought there should be humans on earth." (Dai 2005, 2-3) The narrative also describes how the earth was created:

"The wind was summoned from all four directions by the two brothers. Yellow dust was blown by the east wind. The dust in the south is red. the dark breeze from the north. The dust was blown around by the west wind and mingled together until the earth was formed " (Dai 2005, 4).

From there, the reader can read about the origins of various natural features like the mountains, the Lohit River, etc.

The creation tale is once more referenced by Dai in the third folklore of the same series. The narrative "The statement "At the beginning of time there was no moon" is made in the opening line of **"The Sun and the Moon." There were just two suns that provided heat and light to the globe" (Dai 2005, 19).** The story also highlights the concepts of natural justice as the younger sun is punished by the heavens and the elder sun for choosing to burn the earth and causing agony in living things by pouring all of its internal heat down. It is dropped into a mud pool, where it not only becomes pale but also develops apparent mud stains on its face.

It also suggests that nature has always been a nurturer and fair judge towards humanity. Nature knows how to provide judgement for all the good and bad judgements.

In Mamang Dai's novel Black hill,Gimur, the main character, stands on the hill in both the opening and closing scenes of The Black Hill. Gimur's trip, or more accurately, the voyage of her soul, is chronicled in the book. The novel's other main character is Kajinsha, a young tribal man with a strong personality. The third character, a non-tribal Christian missionary, shows up on the hills to share the Good News. It is a convoluted story that at one point leads the reader to believe that Kajinsha has slain the priest, whose preaching is perceived as a threat to the Pagan faith or the tribal spiritualism, when in fact he has not. In the end, Gimur is left with a feeling of loss after Kajinsha inexplicably vanishes and is slain.

Gimur is frequently depicted in the novel admiring nature and feeling at one with the hill and the forest. Her eco-spiritual recovery and much-needed spiritual stretching can be seen in the novel's last pages:

"The sky above shone with a soft, clear light. She could inhale the grandeur of the sky. Her soul was returning to her. Beyond this spot, the true forest would begin…. She gazed up at the sky. In the gathering darkness a smile stretched her pale face"(Dai 2014, 288)

On the other hand, spiritual degeneration is shown in her novel 'Stupid cupid', where a reader realizes how to get away from the nature and tradition of their Adi culture.

In Stupid Cupid, we observe how modern capitalism and the pleasures of the flesh try to sabotage the bond between people and nature but fall short. Adna, a resident of the hills, travels to New Delhi in search of a more developed and meaningful life, but she quickly becomes caught up in the many snares that come with the acquisition of material things. Her adulterous affair with a married man, which completely obscures her moral perspective, is the first catch. She will soon learn that her aunt has left her a bungalow. Her choice to convert that estate into a guest house where couples and pairs can stay without having their romantic status questioned is the second catch. Her spiritual regeneration is only shown , when she realizes her hometown is calling her and thus she gets back to her nature and her tradition in the end.

**"The lights on the hill were coming on one by one and
Asif tocompete with them, more fireflies beganto gleamontheirsecret errands….
Looking up I saw the prayerflags onthe green hill. They were so tall they halted the
wind. Thewind stopped, listened, andmoved on. Perhapsthere aremoregods and**

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goddesses standing all around us than we will ever know.… Otherwise, why would our souls rise up like birds and fly away with the sound of prayer bells tinkling across the Himalayas?" (Dai 2014, 155)

There are many instances in Dai's Stupid cupid which show similarity with T.S Eliot's Wasteland the modern reader lacks spiritual significance and thus is getting distant from their original self. Similarly in Dai.s Stupid cupid, we see that lack of spiritual significance degenerates'man's morals and hinders his growth.

"What are the roots that clutch, and what branches grow
Out of this stony rubbish? Son of man,
You cannot say, or guess, for you know only
A heap of broken images, where the sun beats,
And the dead tree gives no shelter, the cricket no relief,
And the dry stone no sound of water." (Waste Land, The Burial of Dead).

The theme of eco-spiritualism permeates all of Mamang Dai's writings, whether they are bedtime story collections for kids like The Sky Queen and Once Upon a Moontime or a book for teenagers like Stupid Cupid, whether they are a collection of tribal tales like 'The Legends of Pensam' or a proper novel like 'The Black Hill'. The length of time that the theme is maintained in these works varies, nevertheless, from book to book. 'The Black Hill' and The 'Legends of Pensam' are two of Mamang Dai's five fictional works where the concept of eco-spiritualism is most thoroughly explored. The Black Hill offers a greater variety of eco-spiritual viewpoints than any other fictional work by Mamang Dai.

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Sustainable Supply Chain Management And Reverse Logistics

Dr Madhuri Chansarkar
Assistant Professor LAD and Smt RP College for Women; Nagpur 440022.
Cell: 9823702044; Email: mrchansarkar@gmail.com

Abstract

Organizations are becoming aware that environment is affected by choices they make about how they handle products and processes. As a result of this awareness, companies have begun to enhance efficiency in their processes, by pursuing sustainable practices such as; recycling, reuse, waste reduction and product return management. The concern of sustainability is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The definition concludes that in order to save the earth our resources must be preserved by protecting the environment.

Sustainable development is an all-embracing term which underscores the inter-relationships between economic success, environmental protection and social well-being. Sustainable supply chain management is an innovative approach that helps companies reduce their environmental footprint, decrease costs and increase profits. It focuses on using resources efficiently and ethically throughout the entire supply chain process. The term sustainable development is used primarily in supply chain due to the fact that although activities like transport, storage and packaging management processes give companies competitive advantages, they also have detrimental impact on the environmental and economical performances.

The paper makes use of secondary data to look at the context and objectives of sustainable supply chain management and at innovations put in practice to overcome the negative consequences on the environment.

Keywords

Supply chain, reverse logistics, sustainability and triple bottom line

Introduction

"Supply chain management" is often used interchangeably with "supply chain logistics." However there is a subtle distinction between the two terms. Supply chain management is a more comprehensive process that covers sourcing, manufacturing, transporting, storing, and selling products. In contrast, supply chain logistics refers to the movement and storage of goods within a supply chain.

A supply chain refers to the stages in delivery of the final product to the end consumer. It covers several activities, beginning with the transformation of raw materials into finished products and ending with their distribution. A conventional supply chain management focuses on the speed, cost and reliability of operations, revenue and profit. A sustainable supply chain on the other hand, is one that is environmentally and socially responsible, in addition to being economically viable. A sustainable supply chain 'management' includes additional goals of upholding environmental and societal values, which can include issues such as climate change, water security, deforestation, human rights, fair labour practices and combating corruption.

Supply Chain sustainability

A supply chain is a network of all the companies and activities involved in developing, manufacturing and delivering a business's products. Supply chain management is the practice of coordinating sourcing, production, inventory management and transportation among all the participants in a supply chain, to maximize efficiency and customer satisfaction. Most businesses benefit in time and cost by evaluating and improving supply chain management. Over a period of time it was realized that unbridled economic expansion was unsustainable, that is it was causing damage to the environment by using more of things that could only be replaced naturally. Even after decades of effort to raise living standards through industrialization, many countries were still dealing with extreme poverty. It became clear that economic development at the cost of ecological health and

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social equity did not lead to long-lasting prosperity. With a view to harmonize ecology with prosperity the United Nations set up in 1983, a World Commission on Environment and Development, headed by former Norwegian prime minister Gro Harlem Brundtland. This Commission submitted its report called 'Our Common Future' in 1984 ("Our Common Future: Report of the World Commission on Environment and Development". http://www.un-documents.net/ocf-02.htm). The report famously defined sustainable development as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

From then on, the word 'sustainability' has been used to describe a holistic approach that considers ecological, social and economic dimensions, recognizing that all must be considered together to find lasting prosperity.

Supply chain sustainability refers to a company's efforts to consider the environmental and human impact of their product's journey from raw materials sourcing to production, storage, delivery and each transportation link in between. The goal is to minimize environmental harm from factors like energy usage, water consumption and waste production and having a positive impact on the people and communities in and around their operations. Supply chain sustainability encourages businesses to take decisions and decide supply chain processes in terms of the long-term environmental and human impact, rather than on short-term gains.

Out of all variables, sustainability in the supply chain is considered the most important. Research shows that, for most organizations, the supply chain is responsible for the bulk of the environmental impact. By their very nature, supply chains involve energy-intensive production and transportation, as goods are made and moved from one place to another. Therefore, organizations can make the biggest difference by making changes to their supply chain rather than to any other business operations.

Sustainable reverse logistics

Logistics is one of the main areas of any supply chain critical for the good functioning of organizations. It is also an area that is severely aggressive on the environment. That is why the idea of logistics with less environmental impacts is important.

Sustainable logistics can be defined as a series of measures adopted to reduce the environmental impact caused by the logistics sector.The logistical processes generate various kinds of wastes, in addition to using transport emitting CO^2 in large quantities. Sustainable logistics seeks ways to reduce or recycle these wastes.

Traditionally, forward logistics has been the process of supplying finished goods to customers.

The Council of Logistics Management, a trade organization based in the United States stated that 'logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point-of-origin to the point-of-consumption in order to meet customers' requirements.' These activities are also included in Reverse Logistics, but they are performed in reverse order. Reverse logistics is defined as "The process of planning, implementing, and controlling the efficient, cost effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper disposal." From this definition, it can be seen that reverse logistics is actually the movement of materials or products from customer side to the manufacturer or supplier side as shown below:

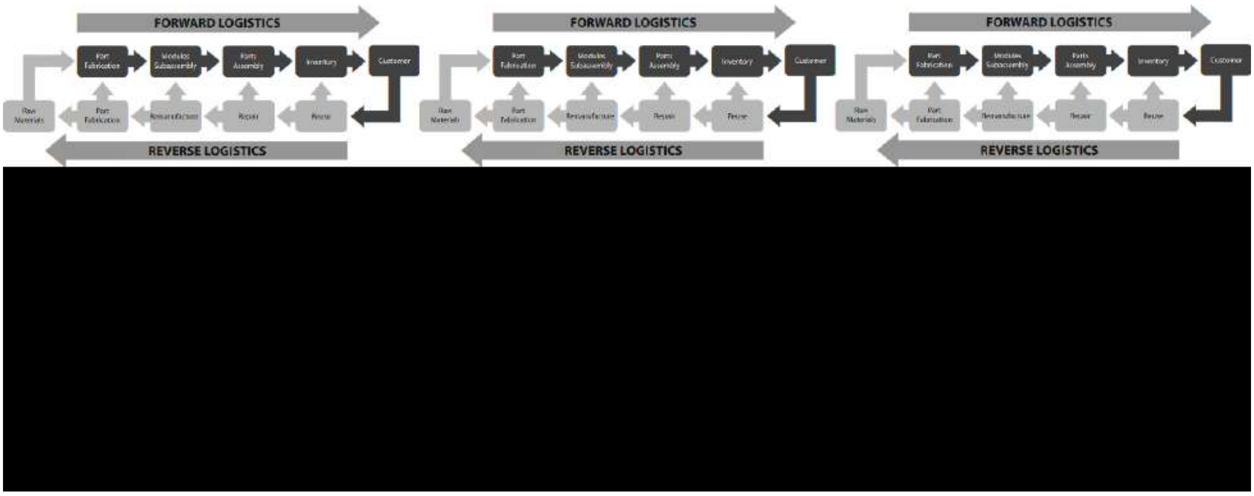

Fig 1: Forward and Reverse Logistics

Although forward and reverse logistics are identical in functionalities, the reverse flow of products is not merely the mirror image of forward distribution flow. Reverse logistics is a concept where goods are moved from customers back to the sellers or manufacturers. It starts at the end consumer, moving backward through the supply chain to the distributor or from the distributor to the manufacturer. Reverse logistics can also include processes where the end consumer is responsible for the final disposal of the product, including recycling, refurbishing or resale. Reverse Logistics came to prominence with the growth of e-commerce when it was noticed that more than 30% of items ordered online are returned compared to less than 8.89% of in-store purchases.(www.invespcro.com/blog/ecommerce-product-return-rate-statistics/).

According to (Agarwal et al; 2015, Rachih et al; 2019), the most cited definition of Reverse Logistics is by Rogers and Tibben-Lembke (1999), who said, Reverse Logistics is "*the process of planning, implementing, and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods, and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper disposal*".

Reverse logistics thus, is the process when a customer returns a purchased product back to a business, including the reselling, recycling, destruction, or other end-of-life steps. Companies use reverse logistics to build customer loyalty, to generate repeat business and to minimize losses related to returns. Apart from sustainability, competition also forced companies to address the importance of reverse logistics. Customers today expect efficient return policies from manufacturers, retailers and service providers and companies also realize they have to extract as much value as possible out of any returned product.

Products are returned or discarded because of two main reasons; either they do not function properly or their functions are no longer needed. Consequently, there are three types of returns –

- Manufacturing returns (involving raw material surplus, quality-control returns, product leftovers),
- Distribution returns (related to product recalls, wrong or damaged deliveries, unsold products, stock adjustments) and
- Customer/User returns (connected to refund guarantees, warranty returns, service returns like repairs and spare parts, and end of use and end of product life).

Most reverse logistics focus on optimization of return flow of products and wastes. Products that have a quick turnover and relatively low cost are known as Fast Moving Consumer Goods (FMCGs) or Consumer Packaged Goods (CPG). FMCG generally include a wide range of frequently purchased consumer products such as toiletries, soap, cosmetics, dental products, shaving products and detergents, as well as non-durables such as glassware, bulbs, batteries, paper products, and plastic goods. FMCG also includes pharmaceuticals, packaged food products, soft drinks, tissue paper, and chocolate bars and so on. Reverse logistics varies across different industries. In the beverage industry, reverse logistics process is used by companies to recapture the value of their empty containers by reusing them. In the construction industry, reverse logistics is used for moving and recycling salvaged materials to new sites thereby saving costs. In the food industry, reverse logistics is responsible for returning packaging materials and pallets and rejected food shipments. According to (srivastava and srivastava 2006, dutta et al 2020), companies work aggressively on the implementation of Reverse Logistics system in countries that have strict laws and regulations related to the proper disposal of waste; but in developing countries Reverse Logistics is still in the emerging stage because many reverse logistical activities are performed by the unorganized sectors.

Implementing the objective of Sustainability

The key to implementing sustainable logistics is embedded in its objectives:

- CO^2 emission reduction
- Efficient use of resources
- Proper disposal of waste
- Optimization of transport routes

With these objectives in mind, implementing long term changes in the logistics processes began, with investing in more economical and less polluting vehicles, using maximum storage potential in deliveries, reusing packaging and investing in waste recycling, promoting environmental awareness among employees and stressing on clean technologies throughout the logistics process.

Today, Supply chain uses digital technology to streamline processes within supply chain operations. With the rise of e-commerce, businesses automated as many business processes as possible. Technology has enabled businesses to completely automate manual tasks, which in turn accelerated supply chain operations and reduced the possibility of human error.

More e-commerce businesses moved towards 'omni-channel' retailing. This practice combines the benefits of different sales points, like mobile-based options, and web platforms in addition to including regular stores.

Use of cloud is another innovation in supply chain. Supply chain cloud computing brought together infrastructure and technology and increased on-time data visibility. Using the cloud helped organizations achieve better results in reducing costs and deploying new applications. Carbon footprint emission reduction was also an important benefit accrued by the decision to move supply chain operations to the cloud.

Advances in AI (artificial intelligence) and ML (machine learning) have revolutionized the performance of e-commerce businesses, and these technologies have proved useful in automating supply chain procedures. The internet of things, or IoT, which is a system of interrelated computing devices with the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction; made it possible to track product location in real time, monitor storage conditions, proactively respond to changes, and forecast the movement and arrival of shipments. It enabled companies to mechanize and automate processes and reduce labour costs. It also cut down on waste and improved service delivery, making it less expensive to manufacture and deliver goods.

Supply chain management solutions based on AI are excellent tools to help organizations effectively tackle supply chain management challenges, from procurement to sales.

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Fig 2:Triple Bottom Line (TBL)

An important measure of sustainability is the concept of Triple Bottom Line (TBL). The triple bottom line (TBL) also referred as three pillars of sustainability is an accounting framework of that incorporates three dimensions of performance: Economic, Environmental and Social. These TBL dimensions are also called the three Ps: People, Planet, and Profits. The most general definition for TBL is a framework that captures the essence of sustainability by measuring the impact of an organization's activities on the world. A positive TBL reflects an increase in the company's value, including both its profitability and shareholder value and its economic, environmental, and social capital.

Conclusion

Sustainable supply chain management is an innovative approach that helps companies reduce their environmental footprint, decrease costs and increase profits. It focuses on using resources efficiently and ethically throughout the entire supply chain process to ensure long-term sustainability. By implementing sustainable practices, companies can improve business performance and at the same time help build a stronger future for our planet. With proper commitment from all stakeholders in the supply chain, successful implementation of sustainable supply chain management is possible.

In India, both the authorities and supply chain companies have taken positive steps towards sustainable practices. Promotions and awareness campaigns are being prioritized so that customer gains knowledge about such green initiatives. Many government missions on sustainability are being supported by companies and it can be said that although we may have started late we are moving in the right direction.

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Sustainable Development In India

Dr. Malhar Kolhatkar
Department of Commerce VMV Commerce, JMT Arts & JJP Science College, Nagpur

Abstract

Sustainable development is a vision and a way of thinking and acting so that we can secure the resources and environment for our future generation. It will not be brought about by policies only. Sustainable development is the key for overall prosperity of the world. It will not be brought about by policies only. Sustainable development will not be easy. Yet, it is an unavoidable responsibility that is achievable with better planning, stronger policies, and effective execution. Governments can no longer look at the issue from a narrow, short-term perspective.

Keywords: Sustainable development, India

Introduction

Sustainable development is the key for overall prosperity of the world. The word sustainable development has many definitions and the most popular definition had been coined by report of "Brundtland", which defines sustainable development as "development that meets the needs of present without compromising the ability of future generations to meet their own needs".

India is now celebrating the 75th Anniversary of her freedom from British rule. The achievement of Independence on 15th August, 1947, was a watershed in the nation's history. Our national leaders had conceptualized the need for planned development of our nation when Indians were still struggling for freedom from British rule. The five-year plans, which started in independent India in 1951, were an attempt to develop our nation in a planned manner. Since then, India has developed to a great extent. India has achieved self-sufficiency in many fields, including food. There have been massive river valley projects, like Bhakra Nangal, Farakka, Damodar Valley Project, etc. (TNAU AGRITECH PORTAL)There have also emerged industrial townships. With the onset of globalization, privately sponsored Special Economic Zones, like the Electronics City in Bengaluru, are on the rise. But forest cover has deteriorated. India's forest cover is now barely 25% of the country's land area which is far below the international requirement of 33%. (Agarwal, 2020) The onsets of destructive natural forces like cyclones have increased. In 2021, six cyclonic storms hit India causing widespread damage and destruction. (Kumar, 2021) In light of these hard facts, it is necessary to rethink the concept of development.

The Sustainable Development Goals

The Sustainable Development Goals (SDGs) which came into effect on 1 January, 2016 is an improvement on the Millennium Development Goals (MDGs). In India, as far as MDGs are concerned, considerable progress has been made in the field of basic universal education, gender equality in education, and global economic growth. However there was slow progress in the improvement of health indicators related to mortality, morbidity, and various environmental factors contributing to poor health conditions. With SDGs in place the Indian government is now trying to integrate the efforts taken towards achieving MDGs with SDGs. SDGs are wider in scope. The 17 SDGs are as follows:

Table no 1 Sustainable Development Goals

Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls

Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts*
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development

Source: www.un.org/sustainabledevelopment/sustainable-development-goals/

Sustainable Development Goals have been built on the universal principle of 'leave no one behind' As far as India is concerned, the national development goals of India, converge well with the SDGs and India is expected to play a leading role in determining the success of the SDGs, globally.

Challenges of sustainable development

The challenges of sustainable development and its consequences are clearly visible. It is only invisible if we not want to see.

Population is a major challenge for the sustainable development. In the beginning of the 21st century the population of the Earth reached 6 billion, and is expected to level out between 10 and 11 billion over the next 50 years. The basic challenges will be shortages of drinking water and arable land for food production.

Poverty is another major challenge because almost 25% of the world's population lives on less than USD 1 per day

Inequality continues to be a serious obstacle to sustainable development with the number of people suffering from undernourishment. The fall of food prices over the past 30 years may have contributed to increases in consumption, but in many regions of the world arable terrains are limited, and the creation of new ones has a destructive effect on the remaining ecosystems. In the future, the growth of food production should notcome at the expense of nature. By 2010 the current step of biodiversity loss should be significantly slowed.

The shortage of drinking water in many regions of the world is a major barrier to sustainable development. It is expected that, at the current rate of development, every second person will suffer from water shortage by the year 2025.

Human health is also an obstacle in sustainable development. In many cases, deaths in developing countries are avoidable. Humanity should direct more attention and money in the coming years to the struggle against diseases. The imminent task is to reduce the death rate among children under five years of age by two-thirds, and the death rate of young mothers by 75% by 2015.

Consumption of energy is a major challenge for the sustainable development. Consumption of all forms of energy is continually rising. The improvement of access to reliable, sustainable and

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environmentally friendly energy sources and services, as well as the creation of national programmes for energy effectiveness, is a particularly important task for the next 10- 15years.

Conclusion

The vision will become reality only if everybody contributes to a world where economic freedom, social justice and environmental protection go hand in hand, making our own and future generations better off than now. Sustainable development is a vision and a way of thinking and acting so that we can secure the resources and environment for our future generation. It will not be brought about by policies only. Sustainable development will not be easy. Yet, it is an unavoidable responsibility that is achievable with better planning, stronger policies, and effective execution. Governments can no longer look at the issue from a narrow, short-term perspective.

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Globalisation Trends And Challenges For The Human Resource And Management

Mervin M Lazarus
Assistant Professor (SFS College, Nagpur),Mobile Number: 9881022073

Abstract

Due to globalisation, border controls have lost their clarity. Due to globalisation, there is a broad variety of alternatives for individuals to pick from as well as an open market for businesses to hunt for expertise. Nevertheless, such types of open, global markets expose corporations to crucial human resource problems. This essay tries to understand and evaluate the issues that come up and affect HRM when a business works on a global basis. In view of their expanding responsibilities in the globalised market, HR managers must propose alternatives to the major problems that the HR team confronts. This is covered in the essay as well.To develop the qualitative rationale and quantitative thinking employed in this multimodal and cross-sectional study, the Organizations of businesses from different industries provided feedback. In the current era of globalization, the human resource function has to deal with a number of challenging issues, including strong leadership, attempting to oversee a diverse staff, the impact of new technology in HR activities like recruitment and selection, legislative and political issues, skill strategic planning, and needing a global outlook.

***Keywords*:**Global attitude, Globalised workplace, Diversified workforce, Effective leadership, Use of technology

INTRODUCTION

The roles and responsibilities of HR departments have altered as a result of business' globalisation. The role of human resources in a corporate giant is becoming more and more crucial as the social, economic, and political environment changes. As a result of the globalisation of the global economy, even small enterprises are discovering that marketing and operating overseas are critical to their success. But management plans must be established in order to conduct business overseas or to develop abroad. These systems comprise managerial controls, planning systems, and naturally human resource systems in order to recruit, select, train, evaluate, and compensate a diverse group of employees. It is challenging to manage individuals when they are located abroad or are affected by globalisation.

In order to acquire a competitiveness these days, firms frequently hire overseas workers while ignoring the local national staff. Currently, businesses are seeking to adopt cutting-edge growth tactics. Businesses with highly skilled personnel and the capacity to anticipate customer needs may find it challenging to retain such international personnel within their borders while upholding current labour laws (Kapoor, 2011). The theoretical model that comes next (see figure 1) gives a quick summary of the recent challenges that have led businesses to grow into the global economy and the necessity that firms manage their human resources well in order to gain a competitive edge in the financial sector.

The topic then moves to how HRM functions in diverse cultural situations and how cultures can differ. This framework states that the political legal system, the economic system, and training and human capital are the other significant factors impacting HRM in global markets. Peer the framework cultures vary extensively in terms of how individuals are motivated, how decisions are taken within the pyramid, and how followers anticipate leadership to behave. Initiatives promoting cultural diversity place a strong emphasis on understanding other people's cultures in order to interact with them more successfully. Human capital, or the capacity of individuals to generate economic output, varies among nations (knowledge, skills and experience). A country's human capital is influenced by a number of variables, but equal education is the key one.

It goes without saying that institutions that require relatively unskilled requirements and poor salaries are drawn to countries with poor human capital, whereas direct foreign investment that creates high-skill jobs prefers to locate to countries with strong human capital. The election process typically

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sets the requirements for particular HRM procedures, including as training, compensation, hiring, firing, and layoffs. The legal system is a cultural consequence that reflects prevailing social norms. A country's economic system, which provides many of the incentives for fostering the growth of its human capital, is also closely related to its culture. On HRM, the state of the economy has an effect. Taxes on compensation packages directly affect HRM.

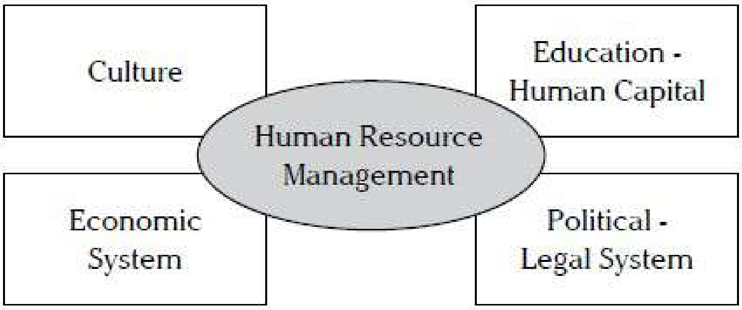

Figure 1. Factors effecting HRM in international Markets
(Source: Noe, R., Gerhart, B., Wright, P., & Eligh, L. (2016). Strategic human resource management: gaining a competitive Advantage. (2nd Canadian ed.). McGraw-Hill Ryerson Limited)

HR strategies can now play a bigger role in international organisations than they could in the past. As a result of globalisation, numerous businesses are adopting global HR strategies and practises. Global organisations struggle with a wide variety of management style differences as a result of the diversity of world cultures. Global HRM is more complicated than a simple set of conventional responsibilities like recruiting, promoting, integrating positions within the workforce, or ensuring suitable compensation and benefits. It calls for deft behavioural gambits and techniques. Managers need to have cross-cultural management skills in order to manage international corporations. Developing a global perspective, which is necessary for an organization's survival and growth in the global community, can help the management deal with multiculturalism (Kanna, 2013).

Research problem:

With the start of globalisation, organisations are supposedly becoming more inventive and worldwide. It's possible that HR managers will run against a few obstacles while attempting to build cohesive, productive workforces. It is possible that concerns relating to culture, religion, tradition, norms, and values may arise now that a varied population has congregated in one place. Solving such problems is essential if one wants to hold onto their place in the field and remain competitive. A strong HR strategy should cover hiring, training, paying, and other facets of human resources in order to address the problems brought about by globalization and its growing pace.

Review of Literature

A continuous system, HRM adjusts to reflect how the corporate environment is evolving (Kumar, Bhusan 2018). The procedures and rules that a company has in place for its employees are managed by human resources. However, due to globalisation and the expansion of communication channels, the world is becoming smaller; even small businesses are now entangled across cultural and geographic boundaries. As globalisation accelerates, businesses compete for increased market share across borders as well as talent and low labour costs. Human resources (HR), which are responsible for finding and deploying the talent necessary to satisfy business objectives for global expansion, are at the centre of this global upheaval (Harris & Martin 2014).

Successful human resource management in multinational organisations comes down to matching the right candidate with the right job at the right time. These worldwide managers must be connected as a part of a unity network in order to find and support strong ideas globally (Quelch and Bloom 1999). Over the past ten years, a wave of change has occurred in the HR sector as a result of the rise of the gig economy, the development of artificial intelligence, the enhanced demand for more diversity, and, more recently, a global pandemic that changed the complexities of thousands of individuals and characterised where and when work takes place (Totah 2021).

When defining HRM, Boxall and Purcell (2008) said that "all the acts are related with the management of people." The term "HR practises" refers to these business-oriented behaviours, which include things like hiring and firing, employee involvement, and training. Therefore, obtaining evidence of this added value has become a top priority for the HRM Performance Research Section. After more than 20 years of study, it has been generally concluded that HRM is significant. Saxena and Tiwari (2009) examined the HRM practises employed by prominent Indian IT companies including Tata, Infosys, and Wipro in a recent study.His profile of HRM practises identified employer-employee relations, recognition through awards, culture building, career development, compensation, and benefits as essential HRM practises.

Responsible leadership has attracted a lot of attention in modern management scholarship, claim Yang Shi and Maolin Ye (2016). Responsible leadership emphasises a holistic strategy for the connection between a leader and stakeholders, in contrast to the traditional dyadic interaction between a leader and a subordinate, making it effective in the face of new challenges from all sectors of society.

According to Sunil Kumar's (2018) study, servant leadership affects followers' behavioural characteristics in the organisation both directly and indirectly in order to achieve desired goals at the individual and organisational levels. Increased job satisfaction, trust, creativity, acknowledgment, and autonomy are advantages of servant leadership. The servant leader focuses on the idea that every unit is equally important, which promotes loyalty and openness in the workplace. Without using situational or dictatorial power, desired results can be reached by embracing servant leadership.

The impact that leaders have on themselves is well known, and followers are influenced by the actions and demeanour of their leaders.The goal of the study was to ascertain whether a responsible leadership style and the employees' displayed civic behaviour were related. According to proper statistical methodologies, the divergence cannot be explained by differences in gender, education, experience, age, responsible leadership style, or organisational citizenship level.

The study's importance can be attributed to its broad knowledge and contribution to our understanding of global trends in human resource management.

- In this study, the primary drivers of the demand for innovation in HR practises are looked at.
- Successful facilitation of corporate strategy through the application of technology HR solutions.
- The study also focused on identifying important organisational and employee outcomes that could be influenced by original HR strategies.

Study Objectives

We believe that this essay will help readers understand the HRM issues that today's global business world is dealing with. The primary objective of the study is to assess the numerous challenges brought on by globalisation in the HR sector. With the aid of primary and secondary data, various difficulties faced by the HR departments of five different organisations could be evaluated. The research's secondary purpose is to suggest a few actions that can help the organisation get beyond challenges. The goal of the current study is to shed light on the links between various challenges and how they affect how well the human resource function operates in companies that operate in different market segments.

Given the increased need to handle global concerns including political, legal, and cultural ones in a globalised society, HRM will inevitably confront more challenges. Therefore, the current study's objective is to investigate several factors that have an impact on HRM performance when a company tries to function in a globalised context.

RESULT ANALYSIS METHODS

The research methodology is based on analytical reasoning, descriptive arguments, and statistical data that are developed from understandings based on responses obtained through questionnaire-based surveys and various research papers, reports, books, journals, newspapers, business magazines, and online data bases. Both qualitative and quantitative research techniques are used in this study.The descriptive research methodology was chosen for the study because it offers an

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overview of the current situation and emphasises expressing what has been perceived. It is a communication/interrogation research study in terms of data collecting, and an effort is made to obtain the participants' responses via survey-questionnaire. With the help of a standardised questionnaire, the main data was collected. The question set includes a list of specified areas that most organisations find difficult to handle.

Several pre-defined topics are taken into consideration based on study results and preliminary interactions with HR employees at various organisations. Along with collecting original data, secondary data generation is widely used as well.The study is cross-sectional because it was only performed once and offers a glimpse of a single period of time. The study's use of actual environmental settings, or the field, demonstrates that the respondents' responses were gathered in their usual environments.

In order to get viewpoints from a variety of corporate industries, the study's sample size is made up of HR teams from five different businesses in industries like banking, oil and gas, FMCG, and hotels. The sample was chosen based on the researcher's capacity to contact HR teams from various organisations and convince them to take part in the study at hand.The survey's focus was on Indian businesses because both researchers are currently based in this continent. The collected data are evaluated using statistical tools including graphs, tables, and frequency distribution.

Analysis and Interpretation:

Based on the primary data collection, the outcomes of each response are described in the section below. The investigation includes a list of the specified areas where the majority of organisations experience difficulties. The offered questionnaire received feedback from five HR teams, and the information is presented in tables and figures. It was discovered that more than 70% of teams struggled to adapt to the varied cultural norms and workplace practises. It is more than impossible to design a policy while taking into account the norm in each nation. To treat individuals as fairly as possible, they must therefore learn the guiding concepts and practises.Each country has its own political history, set of regulations governing visa applications, and hiring practises for foreign workers when it comes to political influence. Another difficult task is for the HR team to analyse each phase in detail before carrying out the final recruiting or selection.

The hiring of individuals with diverse cultural origins also changes managerial practises. HR must put the new procedures into place in order to balance each employee's interest in the company. It might cause changes to how things are currently operating, and managing those adjustments is a challenging task. It initially takes time to persuade the current staff.Furthermore, it is obvious that extensive training by the Human Resources team is required before workers can embrace the change and implement the new practises. It demands more time outside of the actual productive work that an organisation is doing. The group must create the ideal retention strategy that will win over each employee. Many people decide to work for a company due of their position, the environment in which they work, and the respect and recognition they receive from their coworkers because not everyone is only concerned with their financial status.

A majority of organisations find it difficult to manage the varied workforce with the current management and rules, according to the provided graph.The HR team must be exceptionally skilled if they are to manage the varied abilities and exhibit teamwork. Competent leadership must be created in order to effectively manage the workforce.

RESULTS

With 25 to 30% of respondents agreeing and 5 to 10% completely disagreeing, the overall research reveals that managing diversity and skill management are two of the major difficulties that organisations are facing as a result of globalisation.

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Table 1. Areas where HR faces challenges in the Age of Globalisatuon

Area where HR faces challenges in the age of Globalization	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Culture and norms	32%	40%	20%	3%	5%	100%
Political influence	30%	35%	25%	10%	0%	100%
Different country laws	25%	30%	35%	10%	0%	100%
Priority of money and job in different countries	7%	18%	35%	20%	20%	100%
Recruitment through social media	18%	30%	35%	17%	0%	100%
Change management	26%	30%	35%	9%	0%	100%
Compensation	25%	26%	35%	7%	7%	100%
Retention technique	30%	20%	30%	10%	10%	100%

Source: author's own compilation from primary data

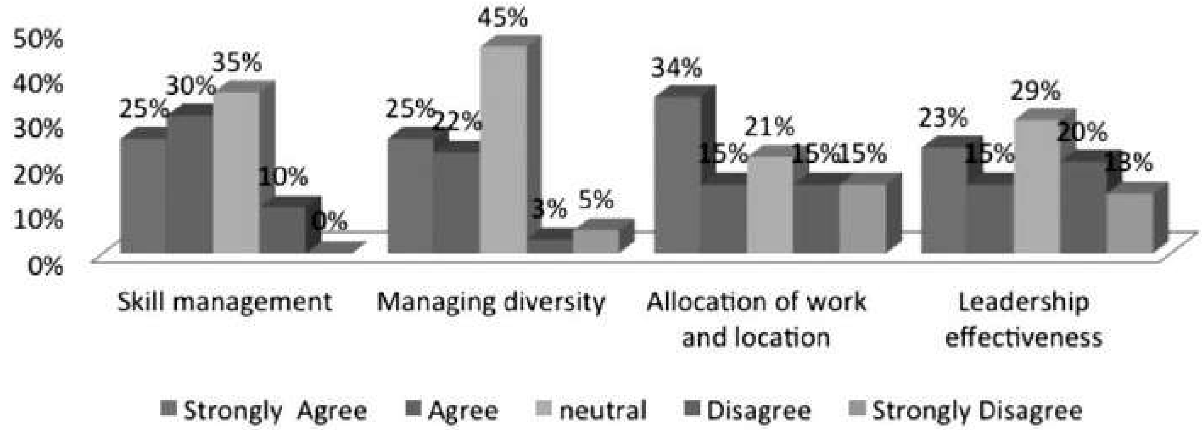

Figure 2. Areas where HR faces challenges due to Globalisatuon

The team also has problems efficiently allocating the various resources. In general, 25% of the team members concur with the statement, whereas 15% disagree. They think the company won't be materially harmed if they have suitable practises in place from the beginning. The teams agree that new leadership must be formed if workplace diversity is to be promoted without leading to regional tensions. More than 50% of those surveyed think traditional leadership will be ineffective in the age of globalisation. One of the major challenges HR faces is creating policies that comply to the cultural norms of numerous nations.Although we are unable to completely change the policies, we can make some adjustments to the way they are carried out. When considering a foreign candidate or hiring overseas, the HR staff must constantly take into account the general state of the international ties between the countries. This includes looking over the general visa policies.

When asked if the various national legislation had an effect on the organisational HR processes, they all agreed. When performing international recruiting and selection for human resources, the HR personnel must take the legal requirements of each nation into consideration. On the other hand, strategic human resource management would take into account each of these elements and do a macro-level analysis of the circumstance.As a result, HR would take the appropriate action that would help the company's overarching goals. The research also reveals that "Priority of money and job in different nations, Recruitment via different portal and social media, Change Management, Compensation and Retention strategy," as well as "Change Management, Compensation and Retention strategy," also pose challenges for firms' HR practises.

RESULTS FOR MANAGEMENT

The researcher discovered that both qualitative and quantitative methodologies must be employed to adequately achieve the study's objectives. The study was conducted in the context of HR and globalisation. The concept of "globalisation" touches on several fundamental presumptions, such as the importance of cross-border knowledge and idea exchange, the requirement for nations to become more economically integrated through increased trade in goods, services, capital, and labour, and the freedom of cross-border movement of people (Tierney & Findlay, 2010). It is feasible to connect the concepts of HRM and globalisation or to assess their interaction while taking into account people thanks to this aspect of globalisation.

The research seeks to close the academic gap that exists about the acknowledgement of the substantial contribution of human resources to sustaining in the globalisation phase and also fostering competitive advantage despite confronting several problems in the globalisation era. Additionally, it sought to add to already conducted study on the subject or closely related subjects. HR may address problems caused by globalisation by putting in place corrective measures such strong leadership, strategic human resource management practises, cultivating a global mindset, and knowledge sharing. This knowledge will be helpful to academics, professionals, and anybody else who has had a direct or indirect engagement in the human resources sector.Companies entering global markets nowadays must recognise that these markets are not a carbon copy of their domestic markets. The theoretical framework that is described below emphasises these differences since they may have a substantial impact on how modern firms handle HRM. These variations include those in economic, political, and educational systems as well as in culture and education.

The challenges that the effects of globalization's impact on human resource practises will bring about can be lessened by global teamwork, which entails the sharing of cross-border and cross-cultural experiences, as well as continuous learning through ongoing leadership and participant training and development. Because of globalisation, firms have the opportunity to expand.According to the business president, as part of the company's expansion process, the HR department is expected to develop a strategic plan that will integrate its goals, objectives, and strategies with those of the company.

To develop new HR strategies that include new hiring, training, pay, and other human resource policies and practises, businesses don't just rely on their sales and marketing departments. Instead, they ask their human resource managers to develop innovative HR strategies that involve utilising more technology to cut the expenses associated with their HR-related tasks and improve customer service by recruiting and inspiring new personnel. The accessibility of new technological tools has significantly changed how work is done.The world has virtually no borders now, or has become a global village, in large part due to technology.

Technology improvements have improved the ways in which we boost our capacity. Given these advancements, it is especially important for the human resources department to function with a global perspective and be knowledgeable about the most cutting-edge technology (Gupta & Rao, 2016) Globalization is a process that the world has unavoidably started, and it is affecting each of us differently. Globalization implies a growing permeability of all boundaries, including those of time and geography, national and state borders, borders of economies, branches, and organisations, as well as less evident boundaries like cultural norms and related presumptions (STUPARU & VASILE, 2009).HR should use cross-border and cross-cultural experiences as prerequisites for career advancement to ensure that every employee feels a part of a powerful, unified company brand. The perspectives that its employees reflect are one of a company's most valuable advantages when it competes with the diversity of ethnicities, cultures, and languages. Given that the foundation of all interactions within the company and with society is mutual respect, HR must take part in a number of programmes that promote openness, transparency, and fairness as well as diversity.

CONCLUSION

Globalization causes significant changes not only in operating parameters but also in organisational HR aspects and approaches, creating some difficulties. On the basis of the primary and secondary data, it was determined that the business must handle its operations and people in a way that gives it an edge over its competitors in the international market.Managing cultural diversity, adjusting and embracing various countries' legal procedures, recruiting and selecting workers using tech-savvy methodologies, keeping staff in a globalised environment, competitive pay that resembles or goes along with widespread global practises, effectively allocating work and location to the employees coming from diverse places, and strong leader that can lead the charge are the main areas of challenges posed by globalisation.

Here, it seems reasonable to cite that HRM in the age of globalisation must transcend linguistic, cultural, and geographic boundaries. Understanding how to manage and control cross-cultural disparities can help the management develop a global perspective, which is essential for an organization's survival and growth in the world economy. In reality, a knowledge-sharing system comprehension is a crucial quality that should be cultivated in a variety of multinational teams of employees. Additional component would be the need for leadership to be established in order to acceptably tackle global issues, and HR professionals need to design a working atmosphere that can motivate and satisfy all groups of staff in a globalised workplace.

Companies can create competency models to pinpoint crucial success factors. The most important corporate effort is HRM, which deals with the "living brand" of the company and its employees. As a result, the HRM function cannot be considered to be merely a support role. The HRM function is now recognised as a strategic partner of the organisation through strategic HRM interventions in the majority of the world's top firms. As a result, enterprises can maintain a sustainable competitive edge in the face of pervasive globalisation by implementing and adopting strategic human resource management techniques and procedures that are consistent with the organization's entire mission and vision.

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Spiritual & Religious Practices Sustainable Work Culture

Dr.Meena A Deshmukh

Associate Professor VMV Com., JMT ARTS AND JJP Sci. College Nagpur 8

Abstract

Recent studies in the field of management, have amply demonstrated that mental tranquility is the essence of productivity of the human beings. It obviously needs no evidence that the joint and judicious application of the body, mind and sole appreciably give boost to individual performance.

Work is defined as an objective oriented human efforts for the welfare of living and non living entities. Since attainment of goal is not the direct function of human efforts due to uncertainties of the environment and inherent constraints in individual working. Workers propitiate before the supreme power. They focus their energies on spiritual and religious activities in order to improve their capacity to perform for seeking tranquility of mind and blessings of the supreme power.

This paper attempts to assess how far the spiritual and religious practices are providentially for the development or progress of the business and productivity of workers. In this paper 63 workers were randomly selected from 30 different establishments relating to trade manufacturing, transport and agriculture. So far as workers were concerned it was found that

- Those possessing faith and devotion to the divine power were able to apply their body, mind and soul judiciously in performing their tasks.
- They habitually seen inclined to propitiate before divine power for seeking the blessings and tranquility and
- Eventually, the corporate and non-corporate business organization never lacked in religious fervor and found to be progressively embarking upon spiritual and organization levels. This traditional approach has considerably mitigated the inherent acrimony between the employer and the employees. The spirit integrates the functioning of body mind and intellect whereas the religious practices unite the humanity.

2. Introduction

Incontrovertibly, the successful performance of work, is the product of proper application of body, mind and soul by a worker. In other words, in the void of willingness, capacity and knowledge no worker can achieve the desired results. Veritably, all the three element are less susceptible to both material, convenience and physical environment. Inherent predictions and aberrations these aspects although closely associated with individual performance, the western management thinker never discerned their significant impact.

More often that not, almost all workers are habitually remain extremely oriented with spiritual and religious beliefs with unflinching faith and conviction. Prof. S.K. Chakraborti

(1)Once adumbrated saying "Every worker after all is the product of his social culture, environment and familiar orientation influencing his thoughts and manner of behavior. People formulate and shape the purpose and promise empowering their future course of action". No person is a robot to function mathematically and mechanically at any point of moment Body, mind and soul possessing enormous potentialities are explicitly imperfect making an endeavor a misfortune. No work that begins with a definite purpose provides the desired results. The unexpected deficiency between the actual results and expectations creates in explicit intricacies resulting in tensions and bitterness.

Concept of Sustainable work

Prof. T.S.Iyer (2) defined sustainable work as an human endeavor to translate any predetermined purpose into factual realizable results." However, he could not further elaborate the implications of the term "Factual realizable results. Swami Chidbhavanand (3) in his penetrative and incisive presentation explains the sustainable work with the following attributes:

- Work has specific purpose or objective to be achieved within the time frame
- Work has the productive and creative results for the benefits of the all living and non-living things;

- Work defines and determines physical and mental standard, instruments, tools and equipment constraints and conditions.
- Work demands specific and relevant information and knowledge and finally
- Work must produce results in absence of which it cannot be called work."

The efforts cannot be deemed as work if they cannot produce realizable and valuable outcomes. Incidentally, the work brings out the change the change both realizable and meaningful to the world. But without efforts no work can be performed. In the light of these considerations sustainable work may be defined as the process of action involving relevant efforts to produce realizable and valuable results for the benefits of living and non living things and begins and this keeping the organizations a "giving concern".

Wordlessness makes them defunct ion.

3. Hypothesis

Body, mind and soul need discipline which is possible through spiritual and religious methods of surrender to the supreme power. So, the hypothesis proposes that capacity to perform any work requires the blessings of the Supreme power that one can get by prayers with devotion. These practices eliminate ego and anger.

4. Objectives

In the light of the above considerations, this paper endeavors to:

2. Identify the spiritual and religious presumptions which are likely to influence work culture of the performer and
3. Examine the common practices for refinement of the performance.

Prior to the analysis in the above direction, the concept propounded in the Shrimad Bhagwat Geeta (4) needs to be considered in the light of the theme"

Kankshantahkarmanamsiddhimyajantihiha devata;
Kshipram hi manushe loke siddhirbhavatikarmja 4.12

It signifies that whereas the achievement is the product of work, the performer who wants to achieve the goal, worships the God in this world. Most succinctly , the above verse highlights the attitude and practice of seeking the blessings of the almighty God. This most popular and highly preferred practiced by people in almost every trading, manufacturing servicing and allied organizations.

5**. Research Methodology**

In order to undertake the study 63 effective and efficient workmen were randomly selected from the following types of organizations as recommended by their proprietors:

	No. of Workman	No. of Organizations
5. Trading shops	18	09
6. Engineering industries	27	12
7. Transport organizations	08	04
8. Farming plantations	10	05
Total	$\boxed{63}$	$\boxed{30}$

On account of extreme limited

On account of limited personal resources the size of sample could not be enlarged but all of them are:

- Having the work experience of not less than 10 to 15 years
- Residing in Nagpur since their birth
- Living with their families and leading the common lives, and
- Associating with the several functions celebrated from time to time.

6. Caste wise profile

Out of selected 63 working members in various establishment 20, 15, 18 and 10 belonged to general class, Schedule caste, Schedule tribes and other backward commodities.

7. Age wise profile

While 27 members were above the age of 50 years, 20 members were of the age below 40 years, thus all of them were adults, male members,

c.Knowledge profile

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All the selected working members were experienced and well-trained out of them 15 were illiterate while 35 studied up to viii and the remaining 13 of them had studied up to 12th standard.

d..Religious Profile

Among the selected 63 working members, 49 members (80 percent) were Hindus, 9 members (15 percent) and remaining 5 members belong to Christianity and Buddhism.

6. Data Collection

In this limited survey they were asked

1. What are common occasions in your organizations religious activities are normally preformed
2. What are usual occasions when you personally perform any kind worship to your deity;
3. Do you have belief in the Supreme power over and above human beings guiding, directing, protecting, solving and helping invisibly and unknowingly.

The responses received from them were systematically collected, and condensed for the purpose of analysis.

7.Data Analysis

The responses to the question a. were finally presented in Table 2 which reveals that:

TABLE 1 SIZE OF SAMPLE RESPONDENT BELIEVING THE SUPREME POWER

NUMBER OF RESPONDENTS

CLASSES	HINDUS	MUSLIMS	CHRISTIANITY	TOTAL
STRONG BELIEVERS	3.3	2.7	3.1	2.8
SECULAR	5.5	7.2	6.5	5.3
NON BELIEVERS	6.4	5.9	7.9	7.5
TOTAL	4.4	4.6	3.3	5.9

[i] 55 working member comprising 87.3 percent of the sample size were firm believers in the supreme power;

[ii] Interestingly all the members belong to Islam were the firm believer of the power the Almighty and

[iii] Only the limited number of working members from the Hindu religion was secular and non believers.

Thus, the majority of working people in commercial establishments are explicitly observed to be god fearing and religious. These workers are experienced to be responsible and performance oriented. On the contrary, the secular and non-believer are highly reckless and incipient.

Further, the worker respondents while giving the replies to the second question identified two different occasions when the religious activities are usually undertaken in the business organization (I) Individual level and (II) Organizational level. Nevertheless, the workers pay their devotional reverence on certain occasion during the course of the performance of the jobs. They are presented in the following Table.

Table: 2 Occasions for seeking blessings

Occasions	No. of Respondents
1. Before the beginning a task	35
2. At the completion of the task	40
3. At accepting new responsibility	51
4. Dissonance of loss	40
5. While committing mistakes on the job	48

Observations

(i) Among the firm believer on the supreme power, 51 workers, even belonging to other religions, remember and worship the power while accepting the new responsibilities. Whenever confidence in the self starts winning, the people fortified themselves by prominently propitiating the supreme eternal power.

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(ii)Commitment of mistakes which is eventually consequent upon mental discomfort a tension, rather compels a responsible worker to seek consolation, the condition demands tranquility of mind; that is the reason why more the 75 percent switch over to devotional methods.

These observations lead to conclude that the belief in the super power, as a specified panacea, offers the great relief for the people in grief.

Organizational Participation

In India, a large number of corporate houses prominently participate in developing and building religious fervor among the employees and people in general. For instance the Birla Group of Industries have constantly participating in construction of temples in cities. Thus the religious and spiritual projects in the commercial and industrial arena are no exception in India. The respondent have rightly acknowledged the organizational initiatives in the religious activities, as shown in Table 3..

Table 3.. Organizational initiatives in religious activities

Religious Activities Annual function of installation of Deities	No. of Sample Organization
• Lord Ganesha	15
• Goddess Durga Devi	07
• Lord Ram	05
• Goddess Saraswati	03
Total	30

Some organizations install both the Lord Ganesha and Goddess Durga Devi.

Observations

[i] In the city of Nagpur it has been a long established popular tradition to install the statue of Lord Ganesha by a great number of organization and it is appropriately reflected in the above Table 50 percent of the selected organizations shown greater preference to the Lord Ganesha.

[ii] The next preference is exhibited in favor of the Goddess Durga Devi and the function continues to remain for more than seven days.

8.Conclusions

The above study leads to the following conclusions;

a.The responsive and considerate workers employed in various commercial, industrial, transport as well as in agricultural are observed to be highly religious and their unflinching devotion and faith in the supreme power of the Almighty. Even the business community is observed to be brimmed with religious fervor.

b. Habitually, majority of workers with great conviction and faith bow before the Almighty not only at the successful performance of the task at the end, but also at the beginning of the task praying for eradication of uncertainties and hurdles.

c.Business organizations undertake prayers and special worships before purchase of properties, installation of new machines, introduction of new products, opening of branches of business.

d. in addition, several business ceremonial Durga Devi, Goddess Saraswati, Lord Ram at the appointed date and day every year without fail.

To sum up these spiritual and religious functions in commercial and industrial fields are the effective beneficial events which develop harmony and unity of purpose among both the employer and employees.

9. **Suggestions**

Perchance, India is the only country in the world where religious conviction is closely concerned with the commitment. People nurture the proposition that the super power is alone capable of making the goals, whether individual or organizational, attainable despite the hindrances. Hence, such activities ought to be encouraged both individually and organizationally, too.

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Social And Green Enterprise

Mrs. Meenal Rajdev

Asst. Prof in Commerce VMV Commerce, JMT Arts & JJP Science College Wardhaman Nagar , Nagpur

Abstract

The doctrine of economic development in new era is inclusive growth ,while maintaining balance between economic growth and environment.Environment management is a global concern today. It can have far-reaching adverse effects on the environment if not dealt with immediately. Micro, small and medium enterprise contributes towards the economic development of the country and augment the employment level of the nation .These MSME,S are the driving force for the transition towards socially cohesive and green enterprise. These enterprises require an ecosystem which promotes local green enterprise. This paper attempts to highlight the need and importance of green enterprise and also evaluates the initiatives taken by Indian companies to incorporate sustainability in their operations

Introduction

The acceleration of economic growth worldwide has resulted in environmental degradation and social inequality. The urban and rural lands are been polluted with harmful emissions from vehicles and factories and dumping of e waste and medical wastes. Water supplies in most of the urban land have been scarce in the last few years. Pollution and climatic variations have resulted in degradation of land and land desertification. More than half of the surface water in India is polluted and the ground water is in critical condition. There is a wide gap in the distribution of national income due to the concentration of wealth with handful of persons. Thus, there arises an immediate need to address the social disparities and environmental degradation by adjusting economic activities which promotes social inclusiveness and greener economy. The United Nations Environment Programme (UNEP) defines Green Economy as, "one which is low carbon, resource efficient and socially inclusive".

Government and private sectors should be encouraged to invest in infrastructure and economic activities which promote low emission of carbon, creation of energy efficient resources and which can prevent the loss of biodiversity and ecosystem services. The United Nations Environment Programme UNEP envisages natural resources as national capital of the country, as the livelihood of the poor people of the country is totally dependent on these natural resources which need to be preserved through sustainable development goals.

We are experiencing tremendous climatic changes and environmental pollution in today's age affecting the health of present as well as future generations. It is also affecting the economic activities of the nation thereby having an impact on the production, employment levels of the country

We need to address these issues for a better and sustainable future, by understanding and acknowledging the fact that resources are finite and demand of growing population is infinite, thereby necessitating the use of resources is a wiser manner and concept of sustainability has to be applied in every sector of development and economic growth.

Changes in climate has resulted has resulted in loss of nature and biodiversity because of land degradation, which in turn affects the economic activities of the country as majority of the population in India is dependent on agriculture as the prime source of their income. Poor Waste disposal system of the country also results in pollution affecting the health of generations to come

Taking the same into cognizance, businesses worldwide have realized that concerns relating to climate change can have detrimental impacts on their profitability. Hence, sustainability is increasingly being accepted as the way forward for businesses worldwide. Over the last decade, a rapid increase in these climate-related natural disasters has drawn the attention of a number of CEOs and eco-entrepreneurs, who are recognizing these alarming patterns and making the required adjustments to help India meet its lofty sustainability goals.

Environmental sustainability will have a long-term influence on businesses in a variety of ways, including:

- **Attracting newer customers**: Consumers today are environmental conscious and prefer green products over the conventional products, so that they can protect the environment. This has led to the businesses to go for sustainable practices and improve the environmental performance of their products. Hence keeping the green perspective in mind, the entrepreneurs are innovating and redesigning their products to achieve sustainable development goals This has resulted in increase in base of ecofriendly consumers. Industries are adopting the concept of green entrepreneurship and green marketing to expand their market share and enable cost saving
- **Adoption of sustainability in operation lad led to cost reduction** -Companies are experiencing significant cost savings through environmental sustainability-related operational improvements, in addition to the financial gains that result from greater competitive advantage and innovation. Energy efficient production techniques can result in reduction in energy bill
- **Increase in Profits**;- Adopting of environmental sustainability in business can lower down the overhead cost thus increasing the overall profitability of the business. Enterprise can carry out it's operations more efficiently if they adhere to the goals of sustainability
- **Improved Goodwill of the enterprise**:- Enterprises which adhere the path of sustainability in their business goals experience improved public image of their business, as consumers are highly interested in products and services which are eco friendly. This in turn helps the business to increase its market share and credibility and also enables the company to improve its reputation with stakeholders and government
- **Improved employee morale** :- Companies practicing sustainable business practices experience high morale of their employees ,as employees get a healthier work environment in the form of good ventilation, natural lighting ,favorably affecting their productivity and reducing their stress levels. This results in low employee turnover and higher satisfaction amongst the employees

Some Indian companies that are transforming their businesses to establish more sustainable practices throughout their supply chain are mentioned below:

1. The initiatives undertaken by Tata Group to implement sustainable development practices includes production of fertilizers and manure out of bio degradable waste, incorporating sustainability in packing of products, and unlocking the value of industrial by-products such as fly ash and road construction.
2. E-Choupal, a landmark initiative by ITC, has been successful in creating an efficient supply chain, tackling issues like fragmented farms, involvement of multiple intermediaries and weak infrastructure.
3. The Godrej Group under its 'Greener India' project ensures that environmental sustainability .Godrej has reduced its water consumption by 56% and hazardous waste by 40%.It's specific energy consumption has also been reduced by 45% They have successfully reduced specific GHG emissions by 51 per cent, and renewable energy accounts for more than half of their energy usage. The Company ensures it offsets its plastic use in packaging that gets released into the market with its products sale across India.
4. Mahindra Group started the production and distribution of electric vehicles to reduce carbon footprints. The company has been revolutionizing mobility by large scale manufacturing of electric vehicle for private and commercial usage.
5. The efforts of Infosys to adopt sustainability in infrastructure were recognized in 2017 with its two building , on each in Jaipur and Thiruanantpuram being awarded the LEED- Platinum rating , the highest standards in green initiatives by IGBC . it has also undertaken the installation of wind turbines , occupancy sensors in conference rooms and rest rooms and REPLACED fluroscent tubes with LED lamps
6. IndusInd Bank has a comprehensive plan to reduce its carbon footprint. Some of the initiatives being undertaken under this plan are solar-powered ATMs, thin computing, e-archiving, e-learning, e-waste management, paperless fax, energy conservation, CNG carsand also supporting finance programs with incentives to go green

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7. Century Plyboards India Ltd. under its project Animal welfare provided shelter to ill and handicapped cows in nearby areas Company also wanted to bring awareness on cow based agriculture, health and environment. Company established cow hostel in Kolkata and nearby area.
8. BHEL has been carried out tree plantation and developments of green belts to encourage the environment sustainability. The company has also undertaken the manufacturing of leaf plates and cups to support sustainability
9. LG India manufactured eco friendly electronic gadgets such as LED E60 and E90 monitor which consume 40% less energy than conventional LED monitors, thereby contributing to energy conservation. With bare use of Halogen and mercury in their production process , they have curtailed the use of hazardous material.
10. Wipro Company ltd has been successful in creating technologies which conserve energy and prevent wastes. Also the headquarters of Wipro in Pune is most eco friendly building promoting innovative and sustainable practices in infrastructure.
11. Hindustan Unilever (HUL) has developed a shampoo which needs minimum water and are in the market with detergent which requires hugely less quantity of water
12. MRF Tyres: MRF has launched the ZSLK series and this is all about creating eco- friendly tubeless tyres made from unique silica- based rubber and also offers extra fuel efficiency to those who drive their vehicles

Challenges in adopting green initiatives to support sustainability

Most of the enterprises interested in going for green initiatives do not really have an idea as to what is to be done for adopting sustainable development practices. They believe that by just being compliant to the applicable pollution norms that have done their part. Also many enterprises have a wrong notion that being green involves huge cost with no returns. They do not recognize that they are missing out on opportunities of using green as a vehicle for competitive advantages. Many enterprises who are adopting sustainable practices by going green in their business procedures are facing challenges in expanding their production base.

1.Higher Installation Cost. The initial Cost of green enterprise is very high as the enterprise has to incur huge expenses for research and development and installation of needed plant, machinery and upgraded technology

2. No profit in initial Years. The enterprise would not be able to earn profits in the first few years , as the cost will start declining after few years with increase in production, when the enterprise starts reaping in due to economies of large scale production.

3. Slow pace of production ;- The production of green products is at a very slow pace as compared to synthesize products ,which results in higher production cost and lower profit margins

4. Adoption of unfair practices by enterprise:- The firm may not be able to face the competition due to higher prices of green products , may give up green marketing concepts and would to tempted to adopt unfair trade practices in the form of cost cutting to sustain the competition and entire concept of going green will be of no use.

5. Creation of Demand for Green Products: - Consumers are not ready to pay higher prices for the green products, which ultimately affect the demand of green products, thus resulting in lower sales and production of green products in long run

Conclusion

Every enterprise has to re-engineer itself to incorporate green practices in their business procedures. Government can act as a facilitator in the journey of business to go green, but cannot be expected to solve the problems faced by the enterprise in adhering to sustainable development goals. Incorporating sustainable practices require pro active involvement of all the stakeholders in maintaining a balance between economic development and environment. Awareness programs need to be conducted to create awareness among the business man and consumers about green products. We need to build green homes, buy and sell green products, patronize green hotels, financial institutions should give priority to green businesses, send our children to green schools.

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Contemporary Issues And Challenges Of Live-In Relationship In India

Mohammed Ujjainwala

Research Scholar Singhania University, Jhunjhunu, Rajasthan.

Dr. S.Mukundrajan

Professor, Singhania University, Rajasthan Singhania University, Jhunjhunu, Pacheri Bari, Rajasthan.

Abstract -Live in relationship is a relationship in which there is an association of couples who lives together under one roof without tying knots (marriage). In India Live in relationship is a controversial issue as many young Indian couples and their families are on opposite sides of the divide. There are a set if unique challenges the unmarried couple has to face while living together under the tag of Live in relationship. Also it is not very uncommon for many cohabiting couples to keep their relationship a secret from their respective families. So, to maintain this secret the couples who are in live in relationship opts to live away from their hometowns for work and disapproval. Regardless of the ruling by the Supreme Court of India that such kind of relationship is not illegal and has also explained the concept of the same in the light of Article 21 (Right to Life) still there is a lot of potential societal challenges and risks of hatred and communalismfor being in live in relationship in India.

There is no prescribed definition of the term live in relationship in any of the Indian laws, but contemporary western culture which is followed the Indian youths have added fuel to the fire of being in Live in relationship. Today's youth who considers they to be very modern and forward welcomes the trend of live in relationship without giving it a second thought that it might be against Indian modesty, dignity and culture of our Country. This is only because today's Indian youth does not follow the traditional or ritualistic approach of any relationship but they just look it as an opportunity of unrestricted sex or sexual pleasure as they consider sex as a need of the body just as human being needs food to satisfy his hunger.

Recent attempts have been made to bring it in theambit of some laws. Apparently it appears like a stress free fellowship without any legal obligations; conversely it has many complications, responsibilities and liabilities. There are many grey areas which need pertinent attention like, official documentation, cultural issues, property rights, will and gift rights, anti- religion status and so on. Arguments are worth on the need for a Formal, Secular and Liberal law for the couple opting for Live in Relationship.

So, in spite of so many complexities regarding live in relationship still it is not considered illegal or a crime, hence it cannot be treated as an offence. Also it cannot be considered as a sin or a taboo because it is related with the most Dynamic fundamental right of Indian Constitution (Article 21) the ambit of which is increasing day by day.

Keywords: Relationship, Couples, Society

Introduction

Live in relationship is a controversial issue in India. The concept has been popularized in India sue to the follow up of western culture; as the western culture which is considered as most modern culture and allows to move in a direction of free living without any social barriers. Men and women who considers themselves to be very modern are moving forward in such a direction which is against Indian modesty ,dignity and rituals but not against their thoughts and beliefs an din which the culture of living of life on their own will has developed, where it is called Live in. Men and women are doing unmarried fun (free life and unrestricted sex) by giving the name of Live in relationship. In the eyes of these ultra modern men and women the social limit of sexual pleasure is conservatism and free sex.

There is no definition of Live in relationship anywhere in Indian Laws. Live in relationship is an arrangement of cohabitation where a couple chooses to live together or mingle with each other on a long term or permanent basis for fornication or sexually intimate relationship. Usually this relationship is between an unmarried women and man. In this type of co-life unmarried couples live together bypassing the religious and legal beliefs of marriage and fulfill their responsibilities of each other in the sake way as they would have done after getting married.

In India marriage has a separate representation in people's mind; it is like traditional pattern of tying nuptial knots and living with each other till the end of the life. Just a generation ago living of unmarried man and woman was considered as scandalous, immoral and unethical. Popularity of live in relationship does not give permission that it is an acceptable concept as living in conservative society where two decades ago man and woman who are not legally married was considered highly incorrigible with good reason that marriage holds much importance than any other relationship and such relationship is violation of that very thought. Many traditional communities opposes live in relationship as they finds it against their religious concerns and social foundation.

Issues and Challenges

The couples livingin live in relationship are looked down upon their relationship as it is considered as Taboo by their families and old age peoples. According to the perceptions of old age people married is the only ticket for staying together. They put at stake such kind of relationship and show a stiff resistance and even those outcasts the couples from family gathering and social events. Elders consider Live in relationship as dilution of social morality, social obligations and family bonds.

According to them live in relationship is not a thing as it is not a part of Indian culture and they; also it hampers the sincerity and responsibilities and increases lamptata. To live in live in relationship in our country India is a very tough task as living in such relationship is regarded as the Lust on Convenience! It is said that the persons or couples who hate responsibilities, lacks mutual respect and who don't trust their partners indulge in such kind of relationship.

Following are some of the major complications regarding Live in relationship:

1. Societal Censure: Lot of criticism has to be faced by the couples which might be mental or emotional by family, friends and society as a whole. For instance, the societies which do not allow live in relationship which includes Landlords, neighbors of such couples and religious communities shun such couples from participating in societal works; because of such kind of behavior from the society the couples are always in a societal pressure which leads to stress and anxiety.

2. Official Documents: As we know that there is no legislative lawsfor the concept or trend of live in relationship, so the couples cannot authorize themselves as live in partners and no authority would provide them such kind of recognition to recognize their relationship and they cannot justify themselves as law abiding citizens because of no legal identity of the couple.

3. Cultural Issues: One of the biggest disadvantages of Live in relationship is cross cultural issues faced by the couples which include loss of their identities, fundamentals beliefs, and struggle with unsupportive families which leads towards mental agonies to the couples and later on it becomes the reason for the end or downfall of their relationship.

4. Property Rights: A major problem is of inheritance of property. None of the personal or secular laws in India has a mechanism for the distribution of self acquired and ancestral property, and till date no attempt has been made to pertain the property rights for the partners and their children for acquiring the property. There is always a room for disputes and issues such as cheating, fraud which may give rise to criminal battles in families over the property issues.

5. Legitimacy of Children: Children's born out of Live in relationship are regarded as illegitimate children and their legitimacy is in danger because they are born out of unmarried couples. Only their rights are reserved under presumptive section 114 of Evidence Act, but their no isolate or special law for such children's who are born out of such relationship. Also if the couples wish to bring the relationship to an end the custody of the child would be a great challenge as there is no authorization for such relationship so the custody of the child will be in question.

Majority of people in India consider live in relationship as a anti social thought which influences innocent and uncorrupted young minds, and according to them "Bad things attracts the most". Criticizing the western culture and the age of globalization Indian minds dominates cultural scenario of civilized world. Aping the western culture is against the cultural heritage of India, people deeply rooted with ritualistic approach of marriage narrow their thinking and consider today's lifestyle of clubbing, partying, wearing western (short) clothes by girls is responsible for such trend od live in relationship in India, as according to them this relationship does not have any attachment and feelings towards each other and the partners are just sharing 'Beds and Bills' to satisfy their physical as well as psychological needs giving it a name of 'Friends with Benefits' or live in relationship. People almost underestimate our country in the name of modernization but they do not think that western culture has also influenced us in many good ways. The revelation of such opposing people just goes to prove that couples adopting such kind of relationship only to fulfill their sexual desire.

Conclusion

The debate of live in relationship has been rising from to time. The number of people are still very less who are living in live in relationship. It is not that there was no live in relationship in ancient India. In Indian marriage systems the 'Gandharva' marriage systems form of today's live in relationship, in which men and women used to live together in front of God as husband and wife. Apart from the husband and wife no one else knew about this relationship. 'Gandharva' marriage was accepted even during that period. Today's open and sophisticated form of this 'Gandharva' marriage is live in relationship. This type of marriage practice is popular in some tribes of Madhya Pradesh under the name of 'Ghotul'. It has been largely pointed out that working youths from different professions and specially from the field of advertising, modeling, entertainment and media are highly influenced towards live in relationship, hence it becomes evident that today's youth wants to sexually satisfy themselves as a human being satisfy his hunger by consuming food.

In spite of so many decisions in favor of live in relationship by the honorable Supreme Court since the year 2010 there are many issues which need a pivotal discourse. It has been seen that there is a rapid impact of western lifestyle which includes domestic cohabitation and changing sexual preferences; still there is a lack of legislative laws for voluntary relationship. Also we claim that we areliving in 21st century still couples living together before marriage is still seen scandalous topic in our society. The explanation for this that. I understand must be that people are unaware of how blissful this concept is. It is a good way to test your relationship, and this way a couple can find out if their relationship will work or not without any responsibility. Live in relationship is just an ideological change of our modern society. This is an ideological aspect of the young couples breaching the freedom of the society for the sake of their own freedom. There is desperation to get rid of social norms and matrimonial responsibilities and these relationships are not controlled and protected by society and law, hence the disorientation of the younger generation is more towards this. What consequences of this will erupt in the near future, it is still in the womb of the future, but it is necessary that the legal side of live-in-relationship is still weak and there is a need to make its universal law. Despite a ruling by the Supreme Court of India that entitles women staying in a live-in relationship the same right as a wife, a lack of social security exposes them to a rampant abusive relationship. It is necessary to understand the potential societal challenges and risks before committing to a live – in relationship in India.

Librarian As A Technology Mediator

Dr. Mohini Bherwani
librarian, S B City College, Nagpur

Abstract

This article discusses the role of the librarian as mediator of information in the search for information literacy, focusing on a better service to the needs of the user, taking into account their socio-cultural context against the new informational demands and dynamics. From a systematic review on the subject, the theoretical-analytical dimension of the subject is undertaken, instituting a trajectory on diverse interdisciplinary theories for the understanding of the possible mediations that involve the successive approximations of this object of study. The analysis of the theoretical framework is based on a deductive approach, starting from the description of the particularity of the role of the librarian in the perspective of the information society. From the mediation of information in libraries to the definition of the renewed role of the librarian in face of this social phenomenon of information; he, as mediator of information, confronts several challenges, with emphasis on pedagogical

Key Words:Information of Mediation. Information Literacy.Librarian.Information user.

Introduction

The face of academic librarianship is changing. While much attention has been focused on the impact of new technologies, new sources of information, and new ways of management, perhaps the most significant change is in the faces across the desk. Students in higher education are becoming more multicultural, their needs and demands shifting, their personal backgrounds and values diversifying. Today multiculturalism includes such factors as race, national origin, religion, gender, age, sexual orientation, physical and mental enablement, and socioeconomic status. The numbers of students from diverse ethnic and cultural heritages are steadily growing.

Creating convenient clinical information tools helps overcome barriers to evidence-based practice, but obstacles to knowledge transfer still remain. For example, although clinicians have shown an increased reliance on Internetbased resources , a recent review revealed that consultation with colleagues and paper sources remain the first choice when clinical questions arise . Physicians also often mistakenly assume that answers to clinical questions do not exist, further suggesting the need for continued research and innovation into convenient knowledge transfer vehicles and continuing education of clinicians. Shaughnessy et al. likened the "current medical information system" to a "jungle" and provided a map, the "usefulness equation," stating that the usefulness of medical information is inversely related to the work done to obtain it . Connelly et al. demonstrated that "availability and applicability" significantly predict knowledge resource use , and Ely et al. noted that "lack of time" was a key obstacle encountered by doctors in their attempts to answer clinical questions

The Information Science is developed by the evolution of three interrelated epistemological paradigms: the physical, the cognitive and the social. These paradigms place the studies of information users in different approaches as described below: the physical paradigm between the 1960s and 1970s with its traditional and positivist approach, emphasized the technological aspect, directed to the retrieval and transfer of information, without the user as the main actor of the system itself; the cognitive paradigm that manifested as from 1970, with an alternative approach, sought to understand how the user assimilated and transformed information into knowledge. In this period, the user of the information becomes the object of investigations, having the cognitivist processes associated to the search, organization and use of the information; in the mid-1990s, the emergence of the social paradigm with a socio-cultural approach began to contemplate the studies of information users in their inter-subjective social relations, focusing on their informational behavior.

It was found that such note-taking was no longer sufficient to address issues related to the effective use of information in response to their real and specific needs for effective production of knowledge.

Against this background, from the 1970s onwards, the field of librarianship, and in particular the field of information science, underwent a new social paradigm that sought to understand the ways in which users search and retrieve information through various media and information sources. need. From this perspective, information acquires significant value in different contexts, domains, and levels, and users of this new configuration are no longer just passive subjects, but actively participate in the process of information construction and thus participate in knowledge.This concept emphasizes that information is a social phenomenon, based on the understanding that subjects are increasingly able to construct based on their socially shared interactions and actions, coupled with collective information practices, such as mechanisms for developing their information-processing skills structured knowledge. From this perspective, it is important to emphasize that through this modernist effect inherent in the new social paradigm that Castells (2016) calls the Information Society, information becomes ubiquitous and accessible not only through Traditional media acquisition, familiar to information professionals, is also acquired through social networks, blogs, user communities on the Internet, etc. It spreads in countless characters and dimensions, sometimes combining text, sound and image.

The apparent ease of access and profusion hides an increasing need for tools and methods for the best appropriation of relevant information to informational subjects. From this perspective, user studies are important tools of planning and management, since they provide information professionals with the ability to identify their users' profiles, with the objective of planning services and products to serve an increasingly complex community in relation to information. These information products and services include those relating primarily to education and user training, and literacy or information literacy, which seek to instruct users to assist those who need to become familiar with the information being physical or digital.

Contextualization Of Information Literacy

From the 1970s, the understanding of the needs, search and use of information sources, especially those of an electronic nature, by users, created a concept, coined in the United States, entitled information literacy, a movement initiated by the North Librarians Americans working within this socio-cultural perspective. Since then, the term informational literacy is related to the conception of learning as a strategy to develop informational skills. In search of a more comprehensive dimension that undertakes the subjectivity of the information user and the social value of information, informational literacy becomes a prerequisite for the success of learning centered on the informational subject and his autonomy, allowing him to acquire habits of reading and constant updating, from the appropriate use of informational search tools and strategies, contributes to the development of critical and responsible thinking in relation to the performance in society, being essential to lifelong learning.

For, it consists of a continuous process of internalization of fundaments conceptual, attitudinal and skills fundamentals necessary for the understanding and permanent interaction with the informational universe and its dynamics, in order to provide lifelong learning. It consolidates a relative weight in the relations between politics, culture and the economy for social transformation, idealizing the paths to development, prosperity and freedom. In this sense, the information literacy:

• Covers the skills of identifying information needs and finding, evaluating, applying and creating information in cultural and social contexts;

• It is critical to the competitive advantage of individuals, companies (especially SMEs), regions and countries;

• Providing effective access, use and creation of content to support economic development, education, health and services and all other aspects of modern society is key to achieving the Millennium Declaration and World Summit on the Information Society;

Librarian required skills for doing a job effectively and to achieve set objective. So every library professional should have the following skills to perform their duties effectively.

Communication Skills: Using good communication techniques, librarians can bridge the gap, stay in touch, build trust, monitor performance and attain the intensive visitor/user. Good communication helps in communicating the message effectively and increases the co-ordinations within the institute.

Hence the Library professionals should have this competency to discuss and engage required stakeholders like students, staff and management.

User- orientation skills: Librarian should provide enough support to users for effective use of library resources. They should provide information of new arrivals to the group effectively. They should engage staff in selecting the new books of respective subjects.

Collection development skills: Wealthy collection of library is foundation of library service. Librarian need to find out new ways of getting information's through latest books and E-services available in the market from various institutes.

Time Management Skills: The Fourth Law of Library Science SR Ranganathan points out the importance of time management for library professionals and users. Library professionals should properly plan all services offered by the library so that time is saved and used efficiently for both.

Leadership: Leadership is the user's work style and motivation. Look at leadership from the perspective of executives' personal qualities, behavioral styles, and decision-making abilities. It's about moving people in the right direction and motivating them to achieve the results they want. It is the most important skill librarians need to achieve their library usage goals. As leaders, librarians should maintain good relationships with management, staff, and users.

Interpersonal Skills: A librarian should have interpersonal or interactive skill to build and maintain the relationship with required stakeholders in order to achieve the objectives of library. He must encourage and engage their staff to give their best to achieve the target. As a librarian he/she manages and organizes different types of activities like for user he arrange library orientation course for user to motivate them.

ICT Skills: Information and communication technology is developing day by day in all type libraries. A librarian should have knowledge to handle the technology which is being used in libraries to perform various operation of library. New information sources are available, as a librarian we accept technological changes and learn new things. Librarian should have a knowledge how technology is implemented in library service.

Vision of the library professional

Information technology will continue to change, making information more accessible to users, and libraries and librarians must use it to provide the best access and services to their stakeholders. Electronic information has challenged the library world since its infancy, moving it from traditional paper and printed formats to an ethereal world of circuits and connections. A library is no longer simply defined as a building or physical repository that houses information. Therefore, in order to achieve the necessary information transformation and meet the digital information needs of users, the basic vision of the future of academic library professionals should focus on:

1. The Vision of the future academic library professional must be to create a world class Networked Global Library and Information Centre to provide web based quality information service to the user in time in the e- learning environment.
2. The librarians must change the library environment as pathways to high quality information in a variety of electronic media and information sources.
3. The vision for the 21st century librarians must offer electronic teaching and learning both to guide and beckon the library profession as education leaders.
4. The library information services must be made online and user friendly.

Conclusion

In the 21st hundred years, everybody is going through computerized change excursion and shrewd arrangements. Library Experts should embrace this change and work on new abilities and information about new necessary advances to give savvy Library data administrations in the computerized climate. They have extraordinary open doors and brilliant vocation possibilities as long as they take on and improve their experts and mechanical capabilities. The experts that expect and embrace change productively, imaginatively and keenly will be ones, who are probably going to, create and prevail in the 21st 100 years.

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The Role And Impact Of Ict In Improving The Quality Of Education In Reference To Nep 2020

Anant Bhushan Sidana

Assistant Professor Kamla Nehru Mahavidyalaya,Sakkardara Square, Nagpur.

Pranav Purushottam Lakhe

Assistant Professor Kamla Nehru Mahavidyalaya,Sakkardara Square, Nagpur

Abstract:

ICTs are making drastic changes in society. They are influencing all fields of life. Similarly, there is no doubt that ICT brings a gigantic change in the field of education also. It makes teaching-learning process more effectual and exciting. To know the impact of ICT in learning we need to know two basic terms- ICT and education.

The ICT includes any communication device or application, encompassing, radio, television, cellular phones, computer, and network hardware and software, satellite system and so on, as well as the various services and applications related with them, such as video conferencing and distance learning. Such technologies are used for educational purposes, namely to help and improve the learning of scholars and develop learning environments. ICT can be regarded as a sub field of educational technology. The paper discusses the role and effect of ICTs, and how they can promote time ahead growth and development.

In educational system, the inputs are teachers, students, classroom resources, equipment of teaching, methods of teaching and the outputs are quantity as well as quality of student learning result. The proper fusion of ICT with teaching/ learning environment increases the chance of acquiring education along with increased productivity. Information communication technologies are creating an impact on all fields of life including education. They are promoting constructive changes in working style, handling and exchanging of information, teaching- learning approaches . One area in which the effects of ICT is important, is education. ICTs are making key changes in the teaching approaches and the ways students are learning.

ICT-based learning environment facilitates active, collaborative, creative, integrative, and evaluative learning as an advantage over the traditional method. In addition, the major advantages of ICTs use in education systems of developing countries focus on training teachers in advance skills and introducing innovative pedagogies into the classrooms, investing on ICT infrastructure for school and creating networks among educational institutes, enhancing overall benchmarks of education by sinking the gap in quality of education between schools in cities and villages, initiation of smart classes in education with objectives to foster self-paced, self-assessed, and self-directed learning through the applications of ICTs, and developing ICT policy for education and training.

Keywords: communication, technology, collaborative, evaluative learning, innovative pedagogies.

Introduction:

ICT is a scientific, technological and engineering discipline and management technique used in managing information, its application and association with social, economic and cultural matters (UNESCO, 2002). Information and Communication Technology (ICT) is increasingly becoming essential part of the education system. ICT has completely changed the style of functioning of the educational system .

The gradual positive changes in using computers changes from learning about computers, to learning computers, and finally to learning with computers (Volman, 2005). A research review by Kozma (2005) suggests three important concerns of consideration regarding ICTs impact on education. The promise founded itself on the launching of Woreda Net, an e government communication and the ICT strategy, which are the major enablers for the fast development of ICT use in the country (Hare, 2007).

Many teachers don't have the necessary IT skills and feel uncomfortable, nor do they have the specific instructions needed to be able to use the new resources in the classroom (Carnoy, 2004).

Therefore, by this paper it is attempted to explore the role and effect of ICTs, and how they can promote future growth and development.

Transformation in education:

The swift spread of ICT applications which have brought drastic technological, social and economic transformations. These changes have caused educational institutions, administrators, educators to rethink their roles, teaching and vision for the future. The sustainability of a nation in the era of knowledge and its economy based on the effective educational system.

It is regarded as the comparative analysis of the inputs and outputs. In Watson's (2001) description, ICTs have revolutionized the way people work today and are now transforming education systems. In educational system, the inputs are teachers, students, classroom materials, equipment of teaching, methods of teaching and the outputs are quantity as well as quality of student learning. The proper integration of ICT with teaching/ learning environment increases the opportunity of gaining education along with increased productivity.

According to New Education Policy 2020 ICT provides various chances to learners and make educators aware of their new roles & responsibilities in educational set up. The growing use of ICT will change many of the strategies employed by both teachers and students in the learning process. The role of ICT in the educational administration is recurring and which cannot be ignored .

ICT in the Present Situation:

The present generation is of technology, and the most important among technology is information and communication technology (ICT). It is a force, and it plays a n important and vital role in all aspects of human life. It has integrated the world and altered the entire global scenario of economic, social, political, and education. Global overall growth and development depend primarily on a skilled workforce which can be achieved through quality education. Tinio (2002), states the potentials of ICTs in increasing access and improving relevance and quality of education in developing countries.

ICT is an educational tool but has been primarily used by economic institutions. The culture and procedures in all modes in activities within business, society, governance and education have been profoundly altered. It slowly transformed education from conventional to high-tech and impacted method of teaching, learning methods, scientific study, and knowledge access.

Education of Information Communication Technology (ICT) Function:

Information and Communication Technology (ICT) is an amended term for IT. It is recent and interactive and provides telecommunications access to information. It has provided society with a vast assembling of communication capabilities over the past few decades and has turned society into a global village. It highlights the role of smart building management system through unified communications and the integration of telecommunications, computers, internet, software, middleware, storage, wireless network, telephone, instant messaging, audio, video conferencing, social networking (Facebook), voice over IP (VoIP) and other medium.

It comprises of processing, extracting, editing, sending or receiving digital data. ICT handles knowledge effectively and efficiently through a variety of technical tools and services and quietly contributes to societies overall growth and development. Worldwide, ICT is concede as a catalyst for revolution, and it has the authority to influence every aspect of society.

It changed place of work, working conditions, business, entertainment, handling information, exchanging information, education, teaching methods, learning approaches, scientific research and in accessing the information.

ICT in teaching and learning :

In Education, ICT means teaching and learning only through ICT. This has grown into an important part of the education system. This is an main part of the education system. It has slowly transformed scholarly society into knowledge and information society which, through exploring knowledge, has transformed the economy into a knowledge economy and assisted nations in creating wealth.

This is a novel and holistic approach to technology, which has a noticeable influence on the education system. It resulted in the qualitative changes and enhanced productivity and changed the

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overall style and functioning of the educational system and its governance. It has contributed, contributed to, and will make an essential contribution to educational advancement.

It is also a ubiquitous fact that it cannot replace educator as they are a main and core part of valuable teaching, and technology cannot succeed without them. The only thing which can be changed, modified and upgraded is technology, way, method and mode of teaching. These innovative changes due to ICT compelled all the educational participants to imagine futuristically and educational institutions, administration and teachers must adjudicate their roles, approach and vision accordingly.

Creative and Innovative Learning:

In this technological era, the industry requires a workforce with techno-managerial skills. To meet the aspiration and to cater to the demand knowledge economy requires educational institutions to produce a graduate who has prerequisite IT and other competitive skills. Educational institutions have to convert their input students to techno -oriented output. This is possible only with the adoption and integration of ICT with teaching and learning. Researchers, academicians and industry professionals have proved that ICT provides opportunities to all educational participants to learn and become excellent.

Over the world, it is accepted by the educational planners that increased exposure of students to educational ICT through curriculum integration has cast a significant and highly productive impact on their achievement. Its exposure enhanced their knowledge, comprehension, practical skills, presentation skills and novel capabilities to a great extent. It empowered and enhanced the ability, adaptability, knowledge and surviving skills of students and teachers. Its instructional use enhanced the growth and development of faculty and students alike.

It is helping the nations to enhance the educational system beyond classrooms and reaching out to all level of society in common. It is playing an outstanding role in formulating, improvising and executing policies in the social, economic, political and educational sector and widening the range of opportunities for students, teachers, industry and poor.

By using educational ICT tools such as video conferencing, online chat, collective social media sites, educators are integrating, coordinating, and collaborating rural and urban learners with experts and peers the teaching learning process become more relevant and authentic. ICT provided a stage to the academic participants and motivate them to invest in it personally and developed their teacher leadership plans.

ICT converted traditional education society into a knowledge economy and enhanced the skills of educators and learners. The use of net has enabled the sharing and easier accessibility of books and scientific books which has increased student knowledge and learning.

Blended learning in the future:

Orthodox way of learning is based on Tran missive modes. Use of ICT in education also affects the way students learning. The appearance of ICTs as a learning technology accidentally insists to think on substitute theories for learning. The traditional teaching has focused on teachers planning and leading students through a series of in structural sequences to achieve desired result.

This way of teaching follows the designed transmission of knowledge though some mutual communication with the content as a means to combine the knowledge acquisition. It depends on the process of personal understanding. In this dominion learning is viewed as the construction of meaning rather than memorization of facts. Use of ICTs provide many opportunities through their provision and support for resource based, student centred learning. It acts to support various outlook of knowledge construction and as more and more spotted. Use of ICTs in their learning process, the more noticeable impact of this will become.

Futurism:

In the semblance of technology, apps and the internet are meant to rule the world in all walks of life. In the educational sector, applications will become the transversal with its rapid development. In future apps as inclusion among teaching tools will give desirable change in a facilitators professionalism. Through this, one can reveal in the application of mobile phones out of classroom environment, penetration of mobile phones in classroom ambience will become pervasive part in a future scenario. Uncertain days such as flood, Corona- COVID 19 Lockdown, quarantine and any other calamity leaves extremely affect the teaching continuity where educational applications will support in most likely indispensable ways.

Conclusion:

ICT are creating an impact on all aspects of life including education. They are promoting drastic changes in working conditions, handling and exchanging of information, teaching-learning approaches and so on. One area in which the impacts of ICT is relevant and significance , is education. ICTs are making great differences in the teaching approaches and the ways of student' learning. ICT-enabled learning environment facilitates active, collaborative, creative, integrative, and evaluative learning as a great lead over the traditional method.

In addition, the major advantages of ICTs use in learning systems of developing countries focus on training teachers in new skills and introducing innovative pedagogies into the classrooms, investing on ICT infrastructure for educational institution and creating networks among educational institutes, improving overall standard of education by reducing the gap in quality of education between schools in cities and villages, initiation of smart school with objectives to foster self-paced, self-assessed, and self-directed learning through the applications of ICTs, and developing ICT policy for education and training.

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Spiritual relevance of ancient Indian texts for sustainable work culture

Dr. Mugdha Deshpande
Dayanand Arya Kanya Mahavidyalaya Jaripatka, Nagpur

Abstract

Spiritualism has become all the more relevant in today's world where everybody is running in competition with others. Greed, ambition, envy have blinded all ethical and moralvalues. Is like pursuing a mirage, the more the needs the more the disappointments.

Even to exist, maintain mental balance, think normally and sustain oneself in all this chaos (at a mental level) one has to take help of spirituality. The ancient Indian texts such as Bhagavad Gita, Vedas and Upanishads provide profound knowledge on how to maintain inner peace even if the outer situations are really bad.

They open up the horizon in the minds of the people. Therefore it is hardly surprising that we can draw such alternative ideas and thoughts from such texts. However, in order to benefit from this immensely, in the domain of management, we need to step out of the world of rationality and tread into unknown areas. Perhaps a nearest reference to this idea in modern day is "out of the box" thinking or thinking "without" the box. This in itself is a paradigm shift in perception that we need to make in our own mind

Introduction

We are being led by materialism today, "Money is the bulls eye solution to all problems "is what we believe. Spend and enjoy is taking the place of save and sacrifice.Criminalization of institutions, more and more social violence, exploitation and such other vices have gone deep in the fabric of the nation. Worker has become a hire able commodity, which can be used, replaced and discarded at will.

The workers have also seen through the game plan of their paymasters who have reduced them to the state of a mercantile product. They changed their attitude to work and started adopting such measures as uncalled for strikes, Gheraos, sit-ins, dharnas, go-slows, work-to-rule etc to get maximum benefit for themselves from the organisations without caring the least for the adverse impact that such coercive methods will cause to the society at large.

Thus we have reached a situation where management and workers have become separate and contradictory entities wherein their approaches are different and interests are conflicting. There is no common goal or understanding which predictably leads to constant suspicion, friction, disillusions and mistrust because of working at cross purposes. The absence of human values and erosion of human touch in the organizational structure resulted in a permanent crisis of confidence.

In this context the Bhagavad Gita expounded thousands of years ago by the Super Management Guru Bhagawan Sri Krishna enlightens us on all managerial techniques leading to a harmonious and blissful state of affairs as against conflicts, tensions, lowest efficiency and least productivity, absence of motivation and lack of work culture etc common to most of the Indian enterprises today.

The modern management concepts like vision, leadership, motivation, excellence in work, achieving goals, meaning of work, attitude towards work, nature of individual, decision making, planning etc., are all discussed in the Bhagavad Gîta with a sharp insight and finest analysis to drive through our confused grey matter making it highly eligible to become a part of the modern management syllabus.

Need for the study

The following statistics are an eye opener for the reason we need to study the situation and work to finding solutions

1 55 % Indian employees bullied at work place

2 40% stressed out due to finances and 40% due to personal growth issues

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3.50% employees worried about uncertain future due to pandemic
4 31% stressed out due to deadlines and work tasks
5 22% stressed out and facing mental issues due to Performance Appraisal
6 45% employees have witnessed harassment of co worker
7 23% of women have faced some form of sexual harassment.
8 450 suicides per day in 2021 , financial and career problems being main issues for suicides among men.

All this statistics reveal that workplace and its environment, stress about earning, meeting deadlines affect the employees mental health and physical well-being. We need to learn to face stress to be sustainable and this is where our scriptures play the role of teaching us how we will learn and what to do.

Relevance of Bhagwad Gita in Management today

In contrast to western management the Bhagwad Gita proposes a holistic view where all the factors of production are also important and their well being is just as important as the objective of profit. They are not treated as mere agents to be exploited in profit creation.

It strikes harmony in working -equilibrium in thoughts and actions, goals and achievements, plans and performance, products and markets. It resolves situations of scarcities be they in the physical, technical or human fields through maximum utilization with the minimum available processes to achieve the goal

The lack of management will cause disorder, confusion, wastage, delay, destruction and even depression. Managing men, money and material in the best possible way according to circumstances and environment is the most important and essential factor for a successful management. Managing men is supposed have the best tactics. Man is the first syllable in management which speaks volumes on the role and significance of man in a scheme of management practices.

Applications in day to day life

The following principles are laid down to guide the manager to optimize welfare at the personal, organizational societal and national level.

1) Optimum utilization of available resources- It is the manager's task to choose wisely and use optimally because resources are scarce. When given a choice between Sri Krishna's wisdom and his strong army Duryodhan chooses the army and Arjun the Lord. This gives us a clue as to who is an efficient manager.

2) Focus on work orientation and not result orientation- According to chapter 3 of the Bhagwad Gita there is no such thing as the state of no work, inaction or 'akarma. (3:5 नक्स्श्चित्क्षणमपिजातुतिष्ठत्यकर्मकृत्So working is a natural thing for us. But on the contrary it is seen that work is a drudgery for us, we do not enjoy it. It is our prospective towards work that works here. We are working because we want to earn a living. Here we can give the example of three stone cutters engaged in building a temple. When asked why they were working one said to earn a living and support his family. The second one said he wanted to prove to the world that he was the finest stone cutter and the third replied that he wanted to build the most beautiful temple in the country. All of them were doing the same work with different perspectives. Needless to say while the first two found work drudgery the third one enjoyed his work. Bhagwad Gita teaches us to develop this visionary perspective in our work. Swami Ranganathananda mentions that there was no word like boredom in the dictionary about 400 years – 600 years ago.

In a nutshell if we cannot be in the state of akarma then let us learn to enjoy what we are doing. (3:9 यज्ञार्थात्कर्मणोऽन्यत्रलोकोऽयंकर्मबन्धनः3:31श्रद्धावन्तोऽनसूयन्तःमुच्यन्तेतेऽपिकर्मभिः

Then there will be no such thing as being bored of work.Krishna goes to the extent of saying that with such a perspective to work, we may realize that even when we do a lot of work, we do not feel like indeed engaging in any work (4:20 कर्मण्यभिप्रवृत्तोऽपिनैवकिञ्चित्करोतिसः).

Dedicated work has to mean 'work for the sake of work'. We are always working in anticipation of future benefits. This affects the quality of work and performance. Another reason for working without expectation of results is that the world does not work as per our calculations and hence we may not always get what we anticipate**.** It is important to learn that we have the freedom of work but not to expect the fruits of work.

कर्मण्येवाधिकारस्तेमाफलेषुकदाचन।

माकर्मफलहेतुर्भूःमातेसङ्गोस्त्वकर्मणि॥ . 2.47.

(You have the right to work but never to the fruits of the action. Further you do not have the right to the root cause of the fruits of action. You also do not have the right to remain in the society without performing any work).

3) Accountability for work- going by the above concept then relieves one of the accountability for his deeds. But this is not true. In fact the whole Bhagwad Gita began with Bhagwan Sri Krishna advising Arjuna to perform his 'swadharma' and not be swayed by emotions. Bhagavad Gita is full of advice on the theory of cause and effect, making the doer responsible for the consequences of his deeds. The Gita, while advising detachment from the avarice of selfish gains by discharging ones accepted duty, does not absolve anybody of the consequences arising from discharge of his responsibilities. Thus the best means for effective work performance is to become the work itself. Attaining this state of nishkama karma is the right attitude to work because it prevents the ego, the mind from dissipation through speculation on future gains or losses. The Gita further explains the theory of non- attachment to the results of work in Ch.18 Verses 13-15 the import of which is as under:

If the result of sincere effort is a success, the entire credit should not be appropriated by the doer alone. If the result of sincere effort is a failure, then too the entire blame does not accrue to the doer.

4) Stress Management through the Gita- Too much work, less time and too many expectations lead to stress. When we look at work as something we enjoy our performance definitely improves and secondly when we perform nishkam karma, we detach ourselves from the results of the work hence stress does not arise at all.

5) Welfare for all – According to the third chapter of the Gita ,'He who shares the wealth generated only after serving the people, through work done as a sacrifice for them, is freed from all the sins. On the contrary those who earn wealth only for themselves, eat sins that lead to frustration and failure.' In the state of 'nirdwandwa', there is detached involvement in work with this attitude the worker begins to feel the hand of god guiding him in work.

Such de-personified intelligence is best suited for those who sincerely believe in the supremacy of organisational goals as compared to narrow personal success and achievement.

6) Work Culture -In Chapter 16 of the Gita Sri Krishna elaborates on two types of Work Ethic daivi sampat or divine work culture and asuri sampat or demonic work culture.

Daivi work culture - means fearlessness, purity, self-control, sacrifice, straightforwardness, self-denial, calmness, absence of fault-finding, absence of greed, gentleness, modesty, absence of envy and pride.

Asuri work culture - means egoism, delusion, desire-centric, improper performance, work which is not oriented towards service.

In this light we can understand ,'yogah karmasu kausalam', Kaushalam means skill and Yogah is defined in the Gita itself as 'samatvam yogah uchyate' meaning unchanging equipoise of mind. By making the mind equable in all actions performed we can achieve the goal of unification of work ethic with ethics in work, for without ethical process no mind can attain equipoise. Skill in performance of duty means keeping the mind even in success or failure because with a calm and even mind alone we can introspect into what went wrong and improve it in future.There is also another dimension in the work ethic. **If karmayoga is blended with bhaktiyoga then the work itself becomes worship, sevayoga.**

7) Motivation theories and Bhagwad Gita- The theories of motivation of Maslow and Herzberg state that every individual strives to appease the lower order needs first and the higher needs arise only after the lower order needs are appeased. In this light then the top level management who have all needs appeased should be the happiest of all. But experience tells us that this is not true. Be it the clerk or the director all have grievances only their scales and composition vary. Even a lowly paid artisan shows high level of self realization even if the lower order needs are not fully satisfied. This

situation is explained by the theory of self transcending in the Bhagwad Gita. .It involves renouncing egoism, putting others before oneself, team work, dignity, sharing, co-operation, harmony, trust, sacrificing lower needs for higher goals, seeing others in you and yourself in others etc. The portrait of a self-realising person is that he is a man who aims at his own position and underrates everything else. On the other hand the Self-transcenders are the visionaries and innovators. Their resolute efforts enable them to achieve the apparently impossible. They overcome all barriers to reach their goal. So it is not just self realization but self transcending that makes a manager efficient. Thus while the common place theories on motivation lead us to bondage, the Gita theory takes us to freedom and real happiness.

Krishnas advice here is *"tasmaat sarveshu kaaleshu mamanusmarah yuddha cha"* 'Therefore under all circumstances remember Me and then fight' (Fight means perform your duties)

Conclusion

For all our achievements, human actions are highly essential. But we have to transform the casual aimless actions into conscious ones. In the modern times one has to convert efforts into endeavor, efficiency, effectiveness into excellence. As Gita puts it efficiency in action (karmasukausala) is yoga (the ultimate perfection).Mind is the mechanism, which makes one transform the efforts into excellence. It changes according to the mood and motive. Computer cannot change the mood and motive of an idle mind. It can at best carry out the task assigned in a systematic manner at high speed. Bhagavad Gita and similar other ancient philosophy can activate an idle person into a spirited karma yogi. That is why such philosophies retain their privileged position even now. And that is the relevance of Gita in modern computer age.

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Social Awareness By Arvind Adiga: A Review

Madhura Farting
Ph. D. Research Scholar (English)RTMNU University, Nagpur

ABSTRACT

Arvind Adiga, a socially dedicated novelist, has shaped a good transaction of literature. His novelscan be grouped into two categories, namely social and autobiographical. He focused his consideration on the sufferings, misery and misery of the poor, as a result of the development of the oppressed of the Indian society. In all the novels Arvind Adiga conveys a social message to the people of India about the Indian society and he also tells how the poor people are living in crushing poverty. He stands in the front line of Indian Writing in English. His great works represent the lives of people in a practical and sympathetic manner. Adiga clearly proved that a writer cannot change the society or cannot remove the problem of social issues from the society, but his presentation of views can encourage the reader or can change the people toface any social issues in their life.

Keywords-white tiger, amnesty, last man in tower, selection day,

INTRODUCTION

Writing is the reflection of a particular society. Writing from days of yore has given us a fair ideaof the shape of morality, thinking and standards of society. These considerations actually project the continuity of the core values of x social setup.The writings of Arvind Adiga circle around the social life of a mundane man. The pathetic to commit murder. He has explored the realism ofthe life and presented the close views of the social life ofcommon people .Analyzing the characters of Arvind Adiga, the researcher found out that theyare too much real, his characters and situation arealso real rather than supernatural. From the virtues we generally pick what is best for us and best for other people. Along these lines social qualities appear and they are known to the individuals. The present study of social awareness revolves around the projected work against the backdrop of occidental domination. Ithas been observed .that some of the consciously resorted to society and culture and some of them have treated it as phenomena and it has been observed that it is not only problematic but also equality difficult to go through the literature on this point [1].

There is a new necessity to comprehend and actively promote social awareness since the demands of modern life have diminished social contacts. The capacity to perceive and respond appropriately to difficulties and obstacles in life, whether they be general, individual, or interpersonal struggles, requires social awareness. Implicitly, a socially conscious or socially aware person will be aware of his or her surroundings and interpret and respond appropriately and accurately to the emotions, behaviors, and responses of people in that immediate area. Socially conscious companies are expected to adhere to or demonstrate a given set of norms, values, and rules. This is mostly dueto the roughly ten degrees of social awareness. To make sure that workers are working in a secure and healthy atmosphere, certain social awarenesselements are necessary. The capacity to examinethe viewpoints of other people, groups, orcommunities and to use that understanding in interactions with them is the basic idea behind social awareness.

Despite having a relatively straightforward description, social awareness is a sensitive and complicated ability that emerges throughout the course of a person's life. In truth, the majority of individuals would concur that developing andhoning our "social awareness" is somethingwe do throughout our lives as we are exposed to fresh know ledge and experiences that require us to value and comprehend the opinions of others. Each benefit from being able to see how they fit into and contribute to any given system or environment they may encounter. However, in the long run, which is the focus of this study, social awareness skills will assist the employee appreciate professionally in the workplace and eventually contribute to firm growth .since it helpsthe business's human-related element flourish [9].

¬1. IN NOVEL WHITE TIGER 'SOCIAL AWARENESS AGAINST POVERTY, INJUSTICE, DOWRY

Poverty is the condition of a person when he cannot fulfill his basic necessities of life such as food, clothing and shelter. As Adiga writes, "Please realize, your Excellency, that India is twocountries in one: an India of Light and an India ofDarkness, he paints a truthful portrait of our country and its classes. The water illuminates my nation. On the map of India, every location closeto the water is prosperous. However, the "black river" spreads darkness to India. Additionally, hedepicts the realities of an Indian hamlet. Defunct electricity poles Water tap not working. Children that are too thin and small for their age, with large heads and expressive eyes that resemble the guilty conscience of the Indian government. Additionally, he depicts the realities of an Indian hamlet. Defunct electricity poles Water tap not working. Children that are too thin and small for their age, with 'large heads and expressive eyesthat resemble the guilty conscience of the Indian government [15]. Arvind Adiga defines poverty as the condition where the basic needs of a family, like food, shelter, clothing and educationare not fulfilled. It can lead to other problems like poor literacy, unemployment, malnutrition etc. A poor person is not able to get an education due toa lack of money and therefore remains unemployed. Arvind Adiga's debut novel. The White Tiger highlights his views of the injustice and poverty present in India's class system. He does this thought the perspective of Balram Halwai, a fictional village boy from Laxmangarh. In this expository novel, Balram narrates his life in the form of a seven - part letter addressed to Wen Jiabao, the premier of China. He describes how he escaped his caste, which was thought to be impossible, and became a successful entrepreneur after killing his own master. The inequality between rich and poor is an important motive of the story. This paper will go in depth into the representation of the poor, the motivation for it and the effects it has on theinterpretation of the story.

The hazard of Dowry system .has become a serious and unethical social stigma in Modern India even-though, the society and the population claim themselves to be literate and educated. This is leading to repression, brutality and physical and emotional cruelty towards women, further it also causes serious financial and emotions stress to the wife's parents and family members, conflicts in the marriage and in husband's home. We have such a society where itis a crime to demand Dowry either during the marriage or even after the marriage, but this dreadful issue of Dowry System still exists in oursociety. Arvind Adiga defines the causes of Dowry System in India. Dowry System is a tradition that does not belong to a single country, it is in all over the world. The girl's parents give the goods, cash, gifts and real or movable property to the groom, his parents, or his relativesas a condition of the marriage and engagement. We are living in the 21stcentury but still many social evils are existing in our society. The dowry systemis firmly predestined. The authorities haveadditionaliy handed laws making dowry a punishable offense. However, the application remains to be prevalent in most components of the nation that struggling the growth for women and their households.

Cultural diversity is a vital factor in modern time as workplaces as well as schools increasingly cultures expand the horizon of thoughts and assist in understanding a wide range of perspectives encompasses several types of cultural, ethnic and racial groups from which we could take lessons. Cultural diversity is an impactful factor in alleviating discrimination and social injustice in India. Arvind Adiga explains the issue of social inequality is a crucial problem of Indian Society, the religious and cultural diversity of India gives rise to social injustice. Aidga conclude that social injustice means inequality in distribution of income, wealth, regional imbalances, employment problems, lack of health, water, education facilities, injustice towards children, women, disabled persons, old age people, orphan children, socially "deprived section of society [1].

2.IN NOVEL "AMNESTY" SOCIALAWARENESSCORRUPTION,TERRORISM, CRIME

Amnesty, Aravind Adiga's fifth novel, is set in Sydney. Its central character is a Tamil called Dhananjay (Danny) Rajaratnam, a would-be Australian citizen from Sri Lanka. His undocumented status comes to the fore whentrying to describe it. He bears physical proof of torture in Sri Lanka because authorities thought he was a terrorist returning from Dubai, but he isnot. deemed a refugee because he came to Australia by plane, not in a people-smuggler's boat. In present - day Sydney, Dhananjay "Danny"Rajaratnam is living as an illegal immigrant. He is originally from Sri Lanka, but

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he fled to Australia because he is Tamil, which is a persecuted ethnic group ifSri Lanka. Danny has been living in Sri Lanka for four years, and he makes his living by cleaning people's homes for pay. For the past two years, he has been dating a women named Sonja, but he has not told her about his illegal immigration status. One day, Danny is cleaning a home, and he notices some police activity across the street.

He soon learns that the woman, who lived there, Radha Thomas, has been murdered. Danny used to be friends with Radha, and heknows that the killer is probably Prakash Wadhwa, the man withwhom Radha was having an affair. Radha's husband is a real estate agent named Mark. Danny is the only one besides Prakash who knows about Radha and Prakash's connection. However, Prakash soon contacts Danny. Prakash says that he knows about Danny's illegal immigration status and that if Danny reports him to the police, then Prakash will report Danny, and Danny will likely be deported. The novel gives some background information on Radha and Prakash. Radha was an Australian citizen, and prejudice and his lack of citizenship bar him from many professional opportunities. Prakash and Radha's rapport was sometimes tense and volatile. Danny confessed his illegal status to Radha, as she worked for the government and said that shemight be able to help him with his legal predicament. Danny wanders the streets ofSydney and wonders what he should do. Prakash repeatedly calls him on the phone and warns him not to go to the police. Danny reflects upon his life in Sydney and his previous life in Sri Lanka.The first time Danny left Sri Lanka; it was to work in Dubai for a year. When Danny returned to Sri Lanka, he was interrogated by governmentagents even used some forms of physical torture.

Fearing for his life, Danny fled to Australia on a student visa. Once he was there, he tried to apply for refugee status, but the government denied his applications. Danny therefore became an illegal immigrant. Since then .he has lived in a room above a shop and has paid half of his work wages to the shop owner. Prakash calls Danny on the phone a few more times. Prakash claims that he is going to board a plane to South Africa in a few hours. However, when Danny sees that thereare no flights to South Africa that day, Danny soon educes that Prakash plans to murder Radha'shusband, Mark. Danny Prakash before he can harm Mark. The police also arrest Danny and schedule him to be deported [2],

3. IN NOVEL"LAST MAN IN TOWER "SOCIAL AWARENESS AGAINST UNEMPLOYMENT

Unemployment is not only harmful for an individual but also has a great impact onsociety as a whole because most of the economic issues arise from unemployment. Now a day's people prefer machinery work instead of manual work sothe use of labor is declining and the rate of unemployment is increasing.

Whereas the word "unemployment" can be difficult to define and is sometimes misunderstood, it covers persons who are waitingto find employment after receiving a discharge. However, it no longer includes those who have given up looking for employment in the last four weeks for a variety of reasons, such as quitting their jobs to seek further education, retiring, being disabled, or having personal troubles. Even those who want a job but are not actively lookingfor one are not regarded as jobless [16].

Last Man in Tower by Arvind Adiga documents the rivalry of two men who are interested inowning the same flat in Mumbai. The novels see neighbor turn against neighbor as their determination to secure the flat, each for his ownpurposes causes them to participate in increasingly dastardly schemes. The novel revolves around the theme of greed and how it has the power to drive us to do things of which we never dreamed we were capable.

The book opens on Dharmen Shah, a Mumbai developer, as well as the antagonist of the story. Mr. Shah wants to purchase the two - story property that house the middle- class Wishram Society. He plans to tear down the building and constructs a luxury high-rise in its place, which he plans to call the Shanghai.

Shah, a ruthless businessman, is determined to doanything he has to in order to achieve his goals. When he is focused on making money, everything else fades into the background, including his own health and well-being.Pig-headed and determined ,he thinks of himself as being unstoppable. However, when he meets Yogesh Murthy, or Masterji, Shah wonders if theold man might be even more stubborn than him. Masterji is a retired schoolteacher who is not easily swayed by money. His priorities lie in preserving his memories of the past, especially what, he remembers of his deceased wife and daughter. Shah sends his assistant to gather information about the property and to get to knowthe current residents. Once Shah has all the information at hisdisposal, he makes a decision. He offers each household $330,000,a sum most of them would otherwise never see within their lifetime .Almost all of the residents eagerly accept Shah's offer of a cash payout.However,afew households refuse to give up their residences .each claiming their own reasons.

For example, Mrs. Pinto is blindand has memorized the layout of the building. She and herfamily worry about how she would cope in a newliving situation, making them reluctant to give uptheir unit. Mrs. Ego distrusts developers like Shah, having seen her uncle cheated out of a similar deal. She is reticent to accept the moneythinking that Shah will somehow manage to get out of paying her. For Masterji, his home houses his strongest memories of his late wife and daughter. He feels that to move somewhere else would be to leave them behind for good. Mr. Kudwa, concerned about keeping up appearances, doesn't want to appear greedy by accepting the money outright. He feigns concernfor his neighbors, as it is a cooperative living situation. Unless they all agree to relinquish theirdwellings; Shah will not be able to proceed with his plans for the Shanghai.

Some of the building's residents take Shah's sidehelping him to persuade the more hesitant tenants. They are clearly eager to accept their portion of the payout. Since most annual salaries in India only amount to $8000, this is an almost incomprehensive amount of money for them. They plead with the other residents gently, swaying them by tilling their minds with ideas ofmaterial goods and the promise of a better life for themselves and their families, should they chooseto accept the money. Finally, only Masterji and the Pintos are holding out against Mr. Shah. Masterji enlists thehelp of various institutions, such as the police, the media, and even his students, to help him make his case and prevent the development from moving forward. One by one,these institutions fail Masterji as they are corrupted by Mr. Shah and his extreme wealth. Masterji starts to feel helpless against a man of such power and influence.

His own neighbors start to distance themselves from him and the Pintos, eventually resorting to pressure tactics to convince them to change theirminds. After Mr. Pinto breaks his foot, the Pintosgives in and agree to give up their property,leaving Masterji on his own. as the last man in thetower trying to defend himself and the building from Mr. Shah but also his own neighbors. The members of the society vote to expel Masterji from the building, which they believe will solve the problem once and for all. However, the deadline imposed by Mr. Shah comes and goes, and they hear nothing from him. No money comes their way .In a moment of desperation,they decide to take matters into their own hands and attack Masterji, knocking him unconscious and throwing his body from the roof. Mr. Shah comes through with the deal, and' several months later, all the residents have moved on to new, luxurious properties and very much enjoying their newt bund wealth. However, some of them are unable to shake the memory of Masterji, and even with all of their money, they cannot rest easy because they are overcome with guilt for having murdered this man whom they remember as a man of conviction, alwaysstanding by his beliefs [3].

4. IN NOVEL "SELECTION DAY" SOCIAL AWARENESS AGAINST CASTEISM, DISCRIMINATION

An interdisciplinary branch of study known as "culture studies" looks into the various aspects ofthe creation, reading, and cultural relevance of a literary work. Analyzing how social, economic, and political systems function in order to understand how different cultural phenomena are produced, given social meanings, given relative values, and accepted as true is a significant task. It sees these cultural phenomena that have meanings and values attached to them as the results of pervasive and dominating social forcesand traditions, and that may either show or challenge the prevailing structure of power in a certain domain of culture. The subversion of hierarchical critique between "high literature" and what is referred to as literature ofthe lower kinds that appeal to the public is a key componentof cultural studies. In general, it favors popular fiction above literary canons and gravitates toward literary works that have been overlooked or dismissed by European academics in terms of aesthetics [8].

India's relationship to cricket has been describedas an obsession ,a love affair ,a national craze, even a religion.Yet,as the Mumbai journalist Soumya Bhattacharya noted in a memoir of his own random, "Religion has led to some of the deepest scars that India carries in its heart.
Cricket is the balm that heals ."For the central characters in "Selection Day", Aravind Adige's vibrant new novel .cricket is both balm and wound .Mohan Kumar ,a chutney salesman by day, lives for his true vocation : raising his sons, Radha and Manjunath to become cricketchampions.(The boy's mother walked out on Mohan years ago and has not been heard from since)Mohan is a buffoon,but he rejects everyone's opinions of him,as well as any advice about his sons. He's driven by revenge. This is a novel in which women are largely absent. They are spoken" of, briefly,or they makefleeting appearances and step off to the sidelinesas in the case of Sophia, Radha's on andoffagain girlfriend. Selection Day is a novel set in Mumbai, India around present day. The central character is Manjunath "Manju" Kumar, the younger of two brothers in an impoverished family living in a Mumbai slum. His brotherRadha is older by about one year, and their fatherMohan is training them both to be professional cricket players.
Mohan believes success in cricket for his sons is the family's path out of poverty. He trains the boys in eccentric and strange ways he has developed himself. Mohan favors Radha, prayingthat he becomes the greatest cricket batter of all time, and that Manju becomes the second best. The boys excel, and are the able to attend the Ali Weinberg International School so they can play on the school's cricket team. There they attract the attention of a talent scout for the Mumbai Cricket Association, Tommy sir. Tommysir introducesthe kumaras to a wealthy man named Anand Mehta. Mehta believes the boys will become a big star in the sport, and offers to support the family financially in exchange for a royalty on theirfuture earnings if they become professional cricketers. The sponsorship deal changes the livesof the Kumar's. For a year they continue to practice and save the money that Mehta pays them, and then they can afford to move from their dark one-room apartment to a house in the suburbs. A new boy joins the school team, JaveedAnsari. Javeed is as good as the Kumar boys, although Radha remains the acknowledged best at the school. Radha brings a girl home. When Mohan comes home and finds them alone in the house together, the is enraged and attacks the boys. They brothers defend themselves,and their father winds up in the hospital with a broken leg.
Manju secretly wishes to pursue non-cricket interests, revealing to Javeed that he wants to be a scientist land not a professional athlete. Javeed reveals he is also disinterested in cricket, and encourages Manju to pursue his own dreams andnot those of his father. Manju, however, is very gifted athletically and fears his driven father, and so continues to improve in cricket, and eventually becomes regarded as a better player than hisbrother. Manju is offered a scholarship to the school. Radha begins to openly resent his brother. Selection day arrives, when players can try out for the professional teams and potentially launch their professional careers. Both Manju and Radha try out; Manju, despite not being interested in cricket, performs well and is selected, but Radha, who wants nothing else in life, cannot put aside his rage and resentment and does poorly. Radha assaults another player in his anger, and flees the city to escape the police. Radha heads back to thefamily's old village. Manju, upset, goes to Javeed's apartment and swears he will play cricket again. Javeed comforts Manju, and the boys become very affectionate. Just as they seemabout to kiss, however, Manju has a panic attackand runs away .He returns home and tells his father he will continue to play Manju is selected to play for the under -19 league and plays brilliantly for three years.He is then selected bythe Mumbai professional team and plays for several more years. Radha returns from the village, but does nothing, supported by money that Manju gives him and living in bitterness. Thebrothers have nothing to do with their father. Manju's heart is never in cricket, and his playingis lackluster; he is eventually transferred to a novelty league and then fired when he is just 27

CONCLUSION

'Arvind Adiga' adequately remembers the social kind of issues for the novel and got back the recommendation for in the record of India's progress, underclass controlling is crucial. As a socialist assertion, he positively requests the uncontrolled and-insane society. So, if we examine, we will see that his fictions cover almost every aspect of up-to-dateIndian society. Adiga has proved through his writings that a writer cannot change the society or cannot remove the issues of social issues from the society but his presentation or views can change the people to face the social affairs. Adiga presents the ideology of overcoming the problemof poverty in India which is a common and continuously prevailing ailment from the past many decades. It gives the impression thatwe desperately want to vary the society and other people mentality. Author through his narration analyses of what troubles Indian Politics, society and economy and advices what got to be done and set is true. To conclude The White Tiger is an awesome depiction of the disparities prevailing inthe name of rich & poor.

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Role of ICTs in rural development with reference to changing climatic conditions

Dr. Vikas Sawant

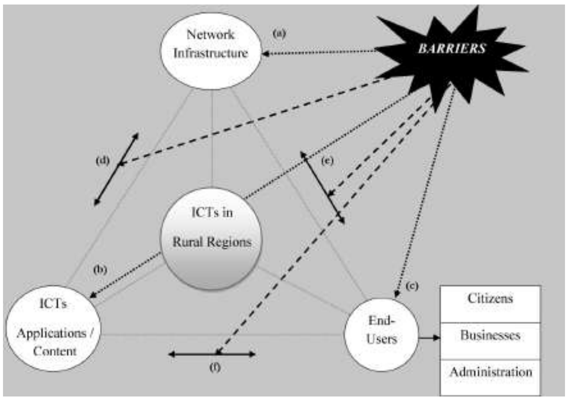
Assistant Professor Dr. HAribhau Admane Arts and Commerce College, Saoner.

Viks.sawant512gmail.com7798857421

Introduction:

Rural Development forms an important agenda of the Government. However, the application of ICT in the Rural Development sector has been relatively slow. The main reasons for this are poor ICT infrastructure in rural areas, poor ICT awareness among agency officials working in rural areas and local language issues. Agriculture is an important sector with more than 70% of the Indian population living in rural areas and earns its live hood by agriculture and allied means of income. The sector faces major challenges of enhancing production in a situation of dwindling natural resources necessary for production. The growing demand for agricultural products, however, also offers opportunities for producers to sustain and improve their livelihoods. Information and communication technologies (ICT) play an important role in addressing these challenges and uplifting the livelihoods of the rural poor. ICT offers an opportunity to introduce new activities, new services and applications into rural areas or to enhance existing services.

ICT can be interpreted broadly as "technologies that facilitate communication and the processing and transmission of information by electronic means." ICT promises a fundamental change in all aspects of our lives, including knowledge dissemination, social interaction, economic and business practices, political engagement, media, education, health, leisure and entertainment. In India ICT applications such as Warana, Dristee, Sari, Sks, E-Chaupal, Cybermohalla, Bhoomi, E-Mitra, Deesha, Star, Setu, Friends, E-Seva, Lokmitra, E-Post, Gramdoot, Dyandoot, Tarahaat, Dhan, Akshaya, Honeybee, Praja are in functioning for rural development.ICTs can play a significant role in combating rural and urban poverty and fostering sustainable development through creating information rich societies and supporting livelihoods. If ICTs are appropriately deployed and realize the differential needs of urban and rural people,



They can become powerful tools of economic, social and political empowerment. The agricultural sector is confronted with the major challenge of increasing production to feed a growing and increasingly prosperous population in a situation of decreasing availability of natural resources. Factors of particular concern are water shortages, declining soil fertility, effects of climate change and rapid decrease of fertile agricultural lands due to urbanisation. However, the growing demand, including for higher quality products, also offers opportunities for improving the livelihoods of rural communities.

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Realising these opportunities requires compliance with more stringent quality standards and regulations for the production and handling of agricultural produce. New approaches and technical innovations are required to cope with these challenges and to enhance the livelihoods of the rural population. The role of ICT to enhance food security and support rural livelihoods is increasingly recognised and was officially endorsed at the World Summit on the Information Society (WSIS) 2003-2005. This includes

the use of computers, internet, geographical information systems, mobile phones, as well as traditional media such as radio or TV. Although it is a relatively new phenomenon, evidence of the contribution of ICT to agricultural development and poverty alleviation is becoming increasingly available.

ICT and agriculture:

The vast majority of poor people lives in rural areas and derives their livelihoods directly or indirectly from agriculture. Increasing the efficiency, productivity and sustainability of small-scale farms is an area where ICT can make a significant contribution. Farming involves risks and uncertainties, with farmers facing many threats from poor soils, drought, erosion and pests. ICTs can deliver useful information to farmers about agriculture like crop care and animal husbandry, fertilizer and feedstock inputs, pest control, seed sourcing and market prices.

ICT for Education:

Moreover, appropriate use of ICTs in the classroom fosters critical, integrative and contextual teaching and learning; develops information literacy (the ability to locate, evaluate and use information). Thus, it improves the overall efficiency of the delivery of education in schools and educational management institutions at the national, state/provincial and community level. The use of ICTs in education aims to improve the quality of teaching and learning as well as democratize the access to education.

ICT for Economic Development:

Information and Communication Technology has a vital role in connecting the rural community to outside world for exchange of information, a basic necessity for economic development. Effective use of ICT can demolish geographical boundaries and can bring rural communities closer to global economic systems and be of meaningful help to the underprivileged.

Employment Opportunities:

Poor people in rural localities have lack of opportunities for employment because they often do not have access to information about them. One use of ICTs is to provide on-line services for job placement through electronic labor exchanges in public employment service or other placement agencies.

ICT in e-Governance:

The poverty can be adequately addressed by effective use of e-governance and ICT application in environmental management. Improved governance by using ICT can have direct impact in reducing poverty and improving the environment. ICT can contribute in a large way in making government processes more efficient and transparent by encouraging communication and information sharing among rural and marginalized people.

ICT in Capacity-building and empowerment

Communities and farmer organisations can be helped through the use of ICTs to strengthen their own capacities and better represent their constituencies when negotiating input and output prices, land claims, resource rights and infrastructure projects. ICT enables rural communities to interact with other stakeholders, thus reducing social isolation. It widens the perspective of local communities in terms of national or global developments, opens up new business opportunities and allows easier contact with friends and relatives. A role is also played by ICT in making processes more efficient and transparent. It helps in making laws and land titles more accessible. Global Positioning Systems (GPS) linked to Geographical Information Systems (GIS), digital cameras and internet, help rural communities to document and communicate their situation. Rural communities benefit from better access to credit and rural banking facilities. Recent mobile banking initiatives offer further scope to reduce costs and stimulate local trade. The Indian AMUL programme automates milk collection and payments for its 500,000 members, thereby enhancing transparency of the milk volume and quality collected and ensuring fair payments to farmers.

ICT and Service delivery mechanisms:

There is a huge gap between information residing in agricultural knowledge centres and rural communities. At local level, multi-stakeholder mechanisms are important to make relevant information accessible to end users. Intermediary organizations have to connect rural communities to available knowledge. Users will increasingly want tailor-made, quality answers to their questions. In the Agricultural Clinics in India customers get answers within one to two days. Mobile Q&A services are being piloted in India. At national level, mechanisms need to be in place to ensure learning and information sharing.

The type of ICT used by local communities is subject to rapid change. However, broadband internet access is seen as central for societal innovation because storing of large datasets and live communication requires good connectivity. Until recently, connectivity in rural areas was limited to slow dial-up lines. Satellite connections now.

ICT and Health:

Health care is one of the most promising areas for poverty alleviation. ICTs are being used in India to facilitate remote consultation, diagnosis and treatment. Delivering health care with ICTs enables health care professionals and institutions to address the critical medical needs of rural communities, especially those in remote locations and those that lack qualified medical personnel and services.

Role of ICT under climate change

The role of ICTs under climate change situation can be explored based on the linkages that exist between ICTs as a system component and its ability to withstand & its ability to recover and to change under changing climatic conditions. .

ICTs can help strengthen the physical preparedness of livelihood systems for climate change related events through applications such as geographic information systems (GIS), and positioning and modelling applications. ICTs can also strengthen institutions and organisations needed for the system to withstand the occurrence of climatic events, including the support of social networks and the facilitation of coordinated action. For example, ICTs can strengthen social networks through enhanced communication within those networks; communication that increases the network bonds by building trust and a sharing of norms and values.

ICTs can enable swift access and mobilisation of financial assets, particularly through applications for mobile banking and mobile finance. By enabling rapid access to financial capital and transactions, ICTs have the potential not only to strengthen local livelihoods but also to improve the speed and efficiency with which local communities are able to cope with and adapt to climate change related hazards and events.

ICTs can also speed up access to information. This is particularly important when an acute climate related shock such as landslide or flood occurs. Mobile based telecommunications networks allow rapid communication of information, thus improving the speed of disaster warning, response and recovery.

ICTs can enable access to the set of resources in the event of climate change related

ICTs can enable access to the set of resources in the event of climate change related shocks or disturbances. ICTs provide access to relevant data and information that is first processed at an individual level, then facilitate communication and interaction between a wide range of stakeholders, and ultimately enable cooperation, which can translate into adaptive actions being implemented with the participation of a wide range of stakeholders. In the Philippines SMS is being used for citizen engagement campaigns that seek to reduce air pollution while encouraging citizen participation, suggesting the potential of these tools to foster environmental action and raise policy awareness. In cases such as this, ICTs can play a role from accessing relevant data and awareness on environmental issues at the individual level, to enabling communication and interaction using mobile telephony, to fostering cooperation with wider networks of stakeholders towards action, through social networking tools and the strengthening of participatory processes.

Conclusion

The use of ICT tools help in strengthening social networks, empowerment and participation, as well as fostering productive processes at the local level through the provision of employment and skills, as well as support services for micro-enterprise activities. In rural communities of developing countries, with limited capacities and resources to respond to the effects of extreme natural hazards, drought, landslides, floods, and to the impacts of these events on local social systems (e.g. health, infrastructure, transportation, migration), ICT tools (the potential of telecentres for disaster preparedness and response) are emerging as an area of increasing interest.

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ICT in Rural Development : Application and Challenges- A Review

Dr.Vivek S. Chavan
Associate Professor (department of commerce) Dr.M.W.P.W.S. Arts ,Commerce And Science College,Nagpur email:-chavanvivek.8@gmail.com,Mobile No. 9373696342

ABSTRACT

ICT stands for Information and Communication Technology. ICT plays a vital role in developing the rural area in various sector, it has helped to develop the rural sector in tremendous way. It is used in rural area for the growth of various field like education, agriculture, medical treatment and many other. However due to lack of growth and awareness about ICT among the rural people the process of development is very less, still it has a tremendous impact in the growth of rural area. The rural people need to know the importance of ICT for the faster improvement of rural sector this will also help ICT to work more efficiently. This paper mainly focused the different application of ICT in various sector to improve the condition of rural area and the challenges faced by ICT to develop rural areas.
Keywords : ICT, Rural Area, Rural People, Rural Development, Application, Challenges

I. INTRODUCTION

Rural Development forms an important agenda of the Government. Information and Communication Technologies (ICT) is being used by the government and non-government organization for developing the rural and urban areas . ICT is one of the rapid development technological fields in the global society [

Rural areas in India still face challenges like sustainable employment in agriculture, allied sectors like quality education, marketing infrastructure, over exploitation of natural resources; inadequate electricity, transport, communication, health, food and storage facilities etc .The emergence of Information and Communications Technology (ICT) has provided means for faster and bettercommunication, efficient storage, retrieval and processing of data and exchange and utilization of information to its users, be they individuals, groups, businesses, organizations or governments . ICT offers an opportunity to introduce new activities, new services and applications into rural areas or to enhance existing services . ICTs also serve as instrument of awareness creation and feedback giving rural people a voice in nation's socio-political life . It contributes to qualitative and quantitative changes in rural life style .

However, benefits of ICTs are not reached expected level in the rural areas still the rural population living with minimum level of ICTs facilities especially the poorest of the poor . The main reason beside this is improper structure of ICT in rural area.

II. Importance of Information and Communication Technology (ICT)

Today, ICT is one ofthe main technological and industrial improvement and progression signs. These days, we cannot ignore ICT since it has such a deep influence on political, social, cultural, and economical aspects of our lives. The influence of informatics technology is quite worthy to be studied both because it brings more opportunities to a society and more challenges into companies. It is obvious that the globalization of economy, culture, and many other modernization changes is not possible without information technology. The importance of information and its availability has changed the developed industrial societies into informatics societies. It also has changed their industrial economies into economies based on information and science .

ICT and Livelihood:

ICT has an impact on livelihood assets in a number of ways depending on the local context in which they are explained as :

A.**Human Capital**: Improved access to education and training through distance learning Programs and Educational tools for wide range of formats.

B.**Financial Capital**: Support and strengthening of the local financial institutions including micro-credit Organizations to improve information provision on services and facilities available such as loans and Savings schemes.

C.**Social Capital**: Improved 'networking' both at the community level with existing networks and Potentially amongst a much wider community.

III.**Application of ICT in Various Sector :-** Information and Communication Technology hasgreat relevance in today's world. If implementedproperly ICT can surely bridge the gap between economically and technology backward and forward classes. Proper training and implementation of ICT programmes in simple way and language which is easily understandable by the rural people can surely bring about revolution in rural development .

AAgriculture

The large number of Majority of poor people lives in rural areas and derives their livelihoods directly or indirectly from agriculture . The role of Information technology in agricultural sector is becoming more and more visible .

Increasing the efficiency, productivity and sustainability of small-scale farms is an area where ICT can make a significant contribution. ICTs can deliver useful information to farmers about agriculture like crop care and animal husbandry, fertilizer and feedstock inputs, pest control, seed sourcing and market prices. The techniques of remote sensing using satellite technologies, geographical information systems, agronomy and soil sciences are used to increase the agricultural output. ICTs based applications can also facilitate electronic trading.

Various ICTs based systems can deliver useful information to farmers regarding crop care and animal husbandry, fertilizer and feedstock, drought mitigation, pest control, irrigation, weather forecasting, seed sources and market prices .

B.**Health**

Health care is one of the most promising areas for poverty alleviation . ICTs can contribute to improve the coverage of national health services in rural areas .

ICTs are being used in India to facilitate remote consultation, diagnosis and treatment. Delivering health care with ICTs enables health care professionals and institutions to address the critical medical needs of rural communities, especially those in remote locations and those that lack qualified medical personnel and services. Telemedicine services can enable access to professional doctors (through web camera, VSAT etc.) irrespective of geographical location. Further, mobile/web applications on health care can help health workers to maintain mother/child database, communicate easily with district/regional health centres for prompt delivery of health services in rural areas .

C.**Education**

ICT is an effective mechanism to make tremendous change and advancement in traditional education scenario. The use of ICTs in education aims to improve the quality of teaching and learning as well as democratize the access to education.

After covid the launch of online courses and availability on e-study material of most of the education boards and universities, rural people can also have opportunity to avail best educational facilities regardless of geographical distance and limited financial resources.

There are rural deficits in all the key components of education – teachers, textbooks and interaction – digital material and ICT based interactions can ameliorate some of these deficits.

D.**e-Governance**

Improved governance by using ICT can have direct impact in reducing poverty and improving the environment. ICT can contribute in a large way in making government processes more efficient and transparent by encouraging communication and information sharing among rural and marginalized people. The rural ICT applications attempt to offer the services of central agencies to the citizens at their village door steps. Computerization of land records have been a great success in application of ICT in rural development. Land records are an important part of rural development .

Creating a land management information system. The farmers were largely benefited CoLR. The farmers can get all necessary records when they need it, these records are free from human

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arbitrations, the updating becomes easy, free from harassment and the farmers had direct access to information regarding their property

E.**Economic Development**

Information and Communication Technology has a vital role in connecting the rural community to outside world for exchange of information, a basic necessity for economic development. Effective use of ICT can demolish geographical boundaries and can bring rural communities closer to global economic systems and be of meaningful help to the underprivileged .

F.**Employment**

Employment ICT can create rural employment, particularly for young people who have some educational qualifications, but not enough to compete effectively for jobs in cities..

ICT have been demonstrated to provide attractive job opportunities for such people, particularly young women. In addition to direct income and employment generation , field interviews suggest that the confidence of these young people is boosted tremendously, and they provide attractive role models for others in rural areas who might consider non- traditional, non-farm rural employment possibilities.

G.**Climate Change**

The role of ICTs under climate change situation can be explored based on the linkages that exist between ICTs as a system component and its ability to withstand & its ability to recover and to change under changing climatic conditions .

ICTs can also speed up access to information. This is particularly important when an acute climate related shock such as landslide or flood occurs. Mobile based telecommunications networks allow rapid communication of information, thus improving the speed of disaster warning, response and recovery. ICTs can enable access to the set of resources in the event of climate change related shocks or disturbances. .

IV. **CHALLENGES FACED BY ICT IN RURAL DEVELOPMENT**

Rural areas are still underserved in terms of ICTs infrastructure and capacity building. As a result, ICTs have not been able to play their expected role in the development of rural areas .

Some of the challenges faced by ICT are:

1.**Illiteracy**: Illiteracy is a massive problem of people from the rural areas . Literacy rate is considerably low in rural areas as compare to urban areas. The condition is more unsatisfactory when we talk about the Digital Literacy .

2.**Language Dominance**: The dominance of English on the internet bounds access of non-English-speaking Population. In the case of India, mostly population does speak in Hindi .

3.**Language barrier**: The information accessible on web is in English as it is an overall acknowledged International language . In Rural Area English is not well known to people properly which cause a barrier for them to understand it.

4.**Connectivity**: Connectivity is not available in most rural areas. Major power cut in rural zone. The limited supply of electricity restrains rural areas to fully utilize ICTs applications especially at village level . ICT does not include only the Internet but a range of other devices which could be used individually or in convergence with each other.

5.**Infrastructure**: There is acute shortage of required infrastructure like electricity, internet technology and methods of communications will influence the speed which postponed the implementation process . The primary point is the huge investment expected to build up a solid system with infrastructure .

6.**Poverty**: In India most of the people are living under poverty condition and does great efforts for their daily living. To them accessing the internet is a costly issue for necessary communications in the form of installing the required telephone lines needed for internet or email access is similarly too exclusive in developing country .

7.**Professionals Scarcity**:

At village level, few digitally literate people are available. If villagers (especially farmers, youth, and beneficiaries) are willing to utilize ICTs based applications then who will regularly train them to acquire the desired knowledge and skills is a major concern .

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8.**Acceptance in Rural People**: Apart from other factors, user acceptance for the ICTs applications in the rural areas is a major challenge it is often taken for granted that any technology transfer to the rural areas would be accepted but we have to consider their own established cultural and traditional ways of doing things .

9.**Unethical Use of ICTs**: In the era of digital world, personal privacy, data security, copyright infringement, computer crimes, cyber-crime etc are also coming in front as major concerns. Further, unethical use of social media is also posing problems .

V. CONCLUSION

1.As the conclusion of this paper, we can say that ICT is the key factor for rural development. The awareness of ICT can increase the interest of people belong to rural areas.

2.Information Technology indirectly impacted the rural economy and helping in rural development which is major issue for developing countries like India.

3 Analyses show that effective applications and channels have been used to benefit rural economy. However, it is important that the government should take more efforts to use of ICT in its development programmes.

4 People of rural areas should be educated to use ICT effectively and efficiently .

5 In order to have a stronger relationship between ICT and rural economy following points can be suggested :

a)ICT should be used in such a way that it can improve the quality of life of rural people and can give more opportunities for employment creation.

b)ICT should be used in such a way that this brings transparency and accountability in various Economical and social programs of government.

c)There is a need to assess the needs of the rural people with regard to information technology

d)Government should implement poverty eradication programmes so that rural people can take benefit of ICT facilities which they are deprived due to their poverty condition.

e)Rural peoples must be educated so that they can become literate and accept the benefits of technology

6.The use of ICT tools helps in strengthening social networks, empowerment and participation, as well as fostering productive processes at the local level through the provision of employment and skills, as well as support services for micro-enterprise activities.

7.The country should recognize the potential ICT has for their communities residing in rural areas. The policies, schemes etc. should be equipped with the ICTs enabled plan to avail the benefits of latest technologies .

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A COMPARATIVE STUDY OF SPORTS AGGRESSION AMONG KABADDI PLAYERS

GOWARDHAN YADORAO WANKHEDE, Dr.Mohan.D Kadwe

Research Scholar, Jyotiba College of Physical Education, Nagpur
Associate professor, R S Mundle Dharampeth Arts and Commerce College, Nagpur
Supervisor & Associate Professor, Jyotiba College of Physical Education, Nagpur

Abstract

The present study was conducted to compare Sports Aggression of Inter University and National level Male Kabaddi Players. In the present study, a total of 350 kabaddi players of Maharashtra have been selected as a sample of the study by purposive sampling method. In which 175 Inter University level and 175 National level Male Kabaddi players. The selected subjects were between the age group of 20 to 27 years. Sports aggression Questionnaire devised by developed by Prof.Anand Kumar Srivastava and Mr. Prem Shankar Shukla was used for measuring the level of Sports aggression of University level Kabaddi players. To find out the difference in the level of sports aggression percentage and 't' test was used to analyse the data. The result of the study shows the significant difference in sports aggression of inter university and national level kabaddi players of Maharashtra. The national level kabaddi players have more sports aggression than inter university level kabaddi players.

Keywords: Sports aggression, Kabaddi players.

Introduction

The word "aggression" refers to a range of behaviours that can harm you, other people, or objects in the environment physically and psychologically. An essential component of human behaviour, aggression is necessary for one to survive and strive for greater success in daily life. Aggression is undoubtedly a part of the struggle for control, power, and glory in sports. In sports, hostility in one form or another is inevitable and inescapable.

When animosity becomes more important than aggressiveness, the situation gets problematic and antisocial conduct occurs. Athletes who are positive can perform better and contribute more to the team's success. In sports, aggression is defined as harmful behaviour that takes place outside of the sport's regulations and has nothing to do with the competition's objectives. Another definition of aggression is any action meant to cause hurt or injury to another living being with the intention of avoiding such treatment. According to a statement of opinion published by the International Society for Sports Psychology, aggressive behaviour is when someone else uses hostile aggression stimuli, either verbally or physically.

Aggression is a characteristic of sports that can have both beneficial and detrimental effects on performance. The definition of sports aggression is "any type of coordinated behaviour intended to cause injury or harm to another organism that is encouraged to avoid such treatment." While most people consider aggressiveness to be a negative mental attribute, some game therapists agree that hostility might improve performance. This type of behaviour is known as decisive behaviour, in which a person plays within the game's rules with a great deal of concentration but without intending to harm a rival. One question that might be asked is, "Where does this aggression originate?" According to the dissatisfaction aggression concept, violence occurs when displeasure arises due to an external obstruction. According to this theory, a player will consistently get aggressive if they are perplexed. Other intrinsic or exogenous factors are not taken into account by this theory.

The team sport of kabaddi truly has its roots in Tamil Nadu, India. The goal of the game, which is played between two teams of seven players, is for one offensive player—referred to as the "raider"—to rush into one half of the other team's field, touch as many of their defenders as they can, and then return to their half in one breath and without being stopped by any defenders. Each person that is tagged receives a point, and halting that player gives the other team a point. A player is taken home for each point their team earns from a card stroke or tackle, but they are eliminated from the game if they are tagged or tackled.

Kabaddi players must be more organised in today's events, particularly in terms of practicing fast strikes and giving more attention to enhancing their physical fitness. Therefore, the most recent model in the area of Kabaddi is to determine how valuable each Kabaddi player is by efficiently evaluating the linked sections as a characteristic of the body and the absolute size of each Kabaddi player. The way a Kabaddi player presents himself during gameplay is divided.

Objective of the Study:

1. To analyze the Sports Aggression of Inter Univresity level Male Kabaddi Players.
2. To analyze the Sports Aggression of National level Male Kabaddi Players.
3. To compare Sports Aggression of Inter University and National level Male Kabaddi Players.

Hypothesis of the study:

1. There will be no significant difference in Sports Aggression of Inter University and National level Kabaddi players of Maharashtra.

METHODOLOGY:

Selection of Subjects:

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The data required for the present study has been collected from the Inter-University level and National level Male Kabaddi players from the places of training and competitions of players like- Stadium, universities, and colleges. In the present study, a total of 350 kabaddi players of Maharashtra have been selected as a sample of the study by purposive sampling method. In which 175 Inter University level and 175 National level Male Kabaddi players

Criterion measures:

In the present study a following questionnaires for psychological variables has been used for data collection. The details of questionnaire is as follows-

1 Sports aggression would be assessed by questionnaire developed by Prof.Anand Kumar Srivastava and Mr. Prem Shankar Shukla.

Statistical analysis of data:

To determine the psychological characteristics of different levels of Kabaddi players percentage and t-test has been calculated.

RESULT AND DISCUSSION OF THE STUDY:

$H_0$1 - There will be no significant difference in Sports Aggression of Inter University and National level Kabaddi players of Maharashtra.

Table : 4.1

Difference in Sports Aggression of Inter University and National level Kabaddi players of Maharashtra

Group	N	Mean	SD	t-value	Result
Inter University level	175	14.20	5.52	4.75	Significant
National level	175	17.37	6.88		

Significant value at 0.05 level is 1.97

Interpretation

Table 1 illustrates the difference sports aggression of inter university and national level kabaddi players of Maharashtra. It is clear from the observation of the table that the mean scores of sports aggression of inter university level and national level players were found 14.20 and 17.37 and the standard deviation were found 5.52 and 6.88 respectively. On calculation, the t-test the value was found to be 4.75. The table value of the t-test is 1.97 at the degree of freedom 348 and the significance level 0.05, which is less than the calculated value. Therefore, the formulated hypothesis is rejected. It can be concluded that there is found significant difference in sports aggression of inter university and national level kabaddi players of Maharashtra.

Graph : 1

Difference in Sports Aggression of Inter University and National level Kabaddi players of Maharashtra

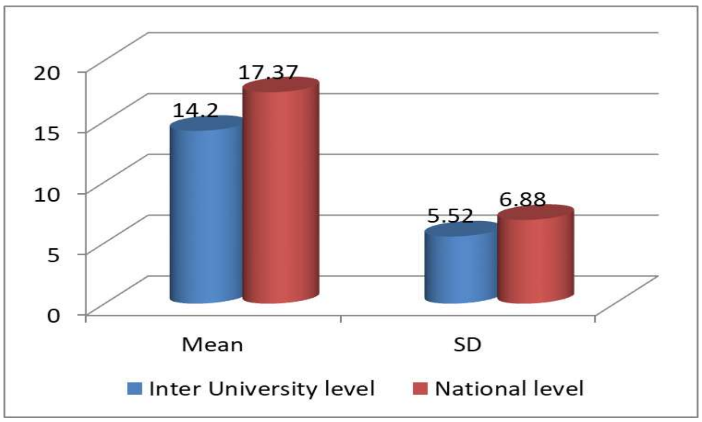


Table : 2

Level of Sports Aggression of Inter University and National level Kabaddi players of Maharashtra

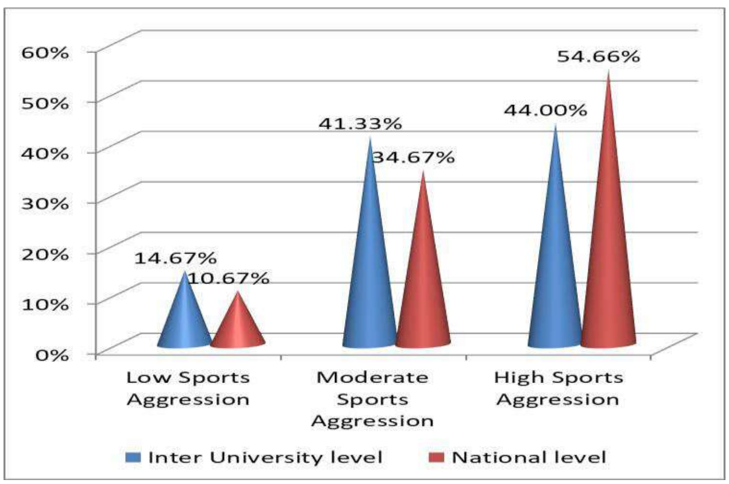
Classification	Inter University level (N=175)	National level (N=175)
Low Sports Aggression	14.67%	10.67%
Moderate Sports Aggression	41.33%	34.67%

High Sports Aggression	44.00%	54.66%

Interpretation

Table 2 illustrates the level of sports aggression of inter university and national level kabaddi players of Maharashtra. It is clear from that, out of 175 inter university level players, 14.67% have low aggression, 41.33% have moderate aggression and 44% have high aggression. Whereas, out of 175 national level players, 10.67% have low aggression, 34.67% have moderate aggression and 54.66% have high aggression. It can be concluded that national level kabaddi players have more sports aggression than inter university level kabaddi players.

Graph : 2
Level of Sports Aggression of Inter University and National level Kabaddi players of Maharashtra



CONCLUSION AND SUGGESTIONS

There is found significant difference in sports aggression of inter university and national level kabaddi players of Maharashtra. The national level kabaddi players have more sports aggression than inter university level kabaddi players.

On the basis of the findings and conclusions of the study the following recommendations are made:

- It is recommended to pay attention on the kabaddi players to help them enhance the status to improve in their game performance.

- To develop the sports persons with necessary potentialities, regular coaching programmes should be introduced in all the university level and college level.
- Adequate care to be taken to improve the physical strength of kabaddi players.
- In view of its historical and national status, the game of Kabaddi should be christened as a heritage game of India.

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A COMPARATIVE STUDY OF SPORTS COMPETITION ANXIETY AMONG KABADDI PLAYERS

[1]Gowardhan Yadorao Wankhede, [2]Dr.Mohan.D Kadwe

[1]Research Scholar, Jyotiba College of Physical Education, Nagpur

[2]Associate professor, R S Mundle Dharampeth Arts and Commerce College, Nagpur
Supervisor & Associate Professor, Jyotiba College of Physical Education, Nagpur

Abstract

The present study was conducted to compare Sports Competition Anxiety of Inter University and National level Male Kabaddi Players. In the present study, a total of 350 kabaddi players of Maharashtra have been selected as a sample of the study by purposive sampling method. In which 175 Inter University level and 175 National level Male Kabaddi players. The selected subjects were between the age group of 20 to 27 years. Sports Competition anxiety would be assessed by questionnaire developed by Reiner Martin was used for measuring the level of Sports Competition Anxiety of University level Kabaddi players. To find out the difference in the level of Sports Competition Anxiety percentage and 't' test was used to analyse the data. The result of the study shows the significant difference in sports competition anxiety of inter university and national level kabaddi players of Maharashtra. The national level kabaddi players have more sports competition anxiety than inter university level kabaddi players.

Keywords: Sports Competition Anxiety, Kabaddi players.

Introduction

Athletes are under pressure to compete in any kind of competition, whether it be formal or informal. This pressure can sometimes have a positive impact on performance and other times have a negative one. Anxiety brought on by mounting pressure from the impending competition might affect sports performance in both directions. Cognitive, physical, emotional, and behavioural aspects are all present in the psychological and physiological state of anxiety. Together, these elements produce an unpleasant sensation that is frequently connected to discomfort, trepidation, dread, or anxiety. Research on the psychological states of athletes before to home and away games has yielded conflicting results.

Anxiety is a generalised mood disorder that frequently manifests itself without a clear trigger. It is therefore different from fear, which happens when a threat is perceived. Furthermore, anxiety is brought on by perceived dangers that are uncontrolled or inescapable, whereas fear is linked to the particular behaviours of escape and avoidance. Numerous studies have shown how psychological issues affect athletic performance. Psychological and physiological aspects are vital in influencing the degree of performance in games and sports.

There are physical, emotional, cognitive, and behavioural aspects to anxiety, which is a psychological and physiological condition. The word anxiety's basic meaning is "to vex or trouble." Anxiety can produce feelings of fear, concern, unease, and dread whether psychological stress is present or not. Anxiety is seen as a typical response to a stressful situation.

By encouraging coping mechanisms, it can assist an individual in managing a challenging circumstance. Anxiety may be classified as an anxiety disorder when it becomes excessive. Anxiety can cause physical symptoms such as heart palpitations, tense and weak muscles, exhaustion, nausea, chest discomfort, shortness of breath, headaches, and stomach and digestive system dysfunction (the fight-or-flight reaction). Anxiety can manifest physically as shaking, sweating, pale complexion, and dilatation of the papillaries. Anxiety can also manifest as a feeling of fear or panic in certain people.

Performance declines as a result of competitive anxiety. A sportsperson can be prepared to perform when they have the ideal amount of anxiety before, during, and after the competition. Excessive anxiety impairs performance by causing shaking, nail biting, increased perspiration, muscular tension, anxiousness, difficulty making judgements, feeling overwhelmed, and out of control. On game day, a lot of athletes who do well in practice or training may have performance anxiety. if your athletic performance is hampered by worry, fear, or nervousness.

Objective of the Study:

1. To analyze the Sports Competition Anxiety of Inter Univresity level Male Kabaddi Players.
2. To analyze the Sports Competition Anxiety of National level Male Kabaddi Players.
3. To compare Sports Competition Anxiety of Inter University level and National level Mail Kabaddi Players.

Hypothesis of the study:

1. There will be no significant difference in Sports Competition Anxiety of Inter University and National level Kabaddi players of Maharashtra.

METHODOLOGY:

Selection of Subjects:

The data required for the present study has been collected from the Inter-University level and National level Male Kabaddi players from the places of training and competitions of players like- Stadium, universities, and colleges. In the present study, a total of 350 kabaddi players of Maharashtra have been selected as a sample of the study by purposive sampling method. In which 175 Inter University level and 175 National level Male Kabaddi players

Criterion measures:

In the present study a following questionnaires for psychological variables has been used for data collection. The details of questionnaire is as follows-

1 Sports Competition anxiety would be assessed by questionnaire developed by Reiner Martin.

Statistical analysis of data:

To determine the psychological characteristics of different levels of Kabaddi players percentage and t-test has been calculated.

RESULT AND DISCUSSION OF THE STUDY:

$H_0$1 – There will be no significant difference in Sports Competition Anxiety of Inter University and National level Kabaddi players of Maharashtra.

Table : 1

Difference in Sports Competition Anxiety of Inter University and National level Kabaddi players of Maharashtra

Group	N	Mean	SD	t-value	Result
Inter University level	175	25.76	4.11	4.30	Significant
National level	175	27.53	3.58		

Significant value at 0.05 level is 1.97

Interpretation

Table 1 illustrates the difference sports competition anxiety of inter university and national level kabaddi players of Maharashtra. It is clear from the observation of the table that the mean scores of sports competition anxiety of inter university level and national level players were found

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25.76 and 27.53 and the standard deviation were found 4.11 and 3.58 respectively. On calculation, the t-test the value was found to be 4.30. The table value of the t-test is 1.97 at the degree of freedom 348 and the significance level 0.05, which is less than the calculated value. Therefore, the formulated hypothesis is rejected. It can be concluded that there is found significant difference in sports competition anxiety of inter university and national level kabaddi players of Maharashtra.

The graphical presentation of mean and SD scores of sports competition anxiety of inter university and national level kabaddi players has been given below-

Graph : 1

Difference in Sports Competition Anxiety of Inter University and National level Kabaddi players of Maharashtra

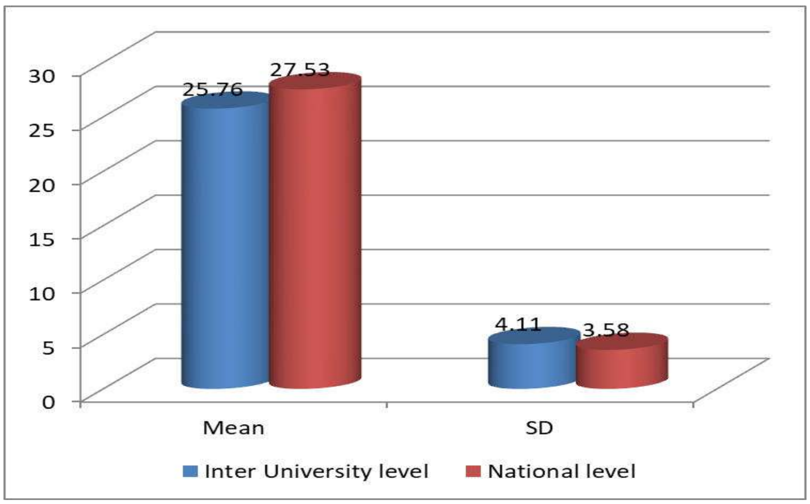


Table : 2

Level of Sports Competition Anxiety of Inter University and National level Kabaddi players of Maharashtra

Classification	Inter University level (N=175)	National level (N=175)

Low Anxiety	24.00%	17.33%
Moderate Anxiety	42.67%	34.67%
High Anxiety	33.33%	48.00%

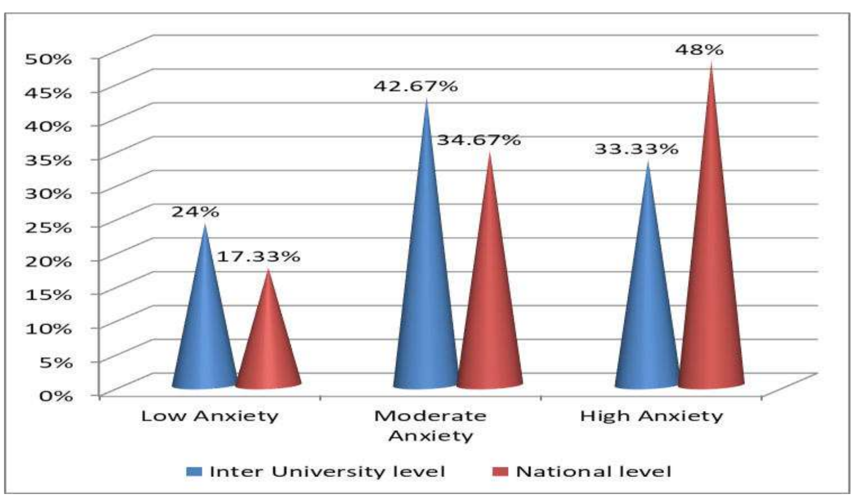
Interpretation

Table 2 illustrates the level of sports competition anxiety of inter university and national level kabaddi players of Maharashtra. It is clear from that, out of 175 inter university level players, 24% have low anxiety, 42.67% have moderate anxiety and 33.33% have high anxiety. Whereas, out of 175 national level players, 17.33% have low anxiety, 34.67% have moderate anxiety and 48% have high anxiety. It can be concluded that national level kabaddi players have more sports competition anxiety than inter university level kabaddi players.

The graphical presentation of level of sports competition anxiety of inter university and national level kabaddi players has been given below-

Graph : 2

Level of Sports Competition Anxiety of Inter University and National level Kabaddi players of Maharashtra



CONCLUSION AND SUGGESTIONS

There is found no significant difference in sports competition anxiety of inter university and national level kabaddi players of Maharashtra. The national level kabaddi players have more sports competition anxiety than inter university level kabaddi players. On the basis of the findings and conclusions of the study the following recommendations are made:

- The government and the private sectors should offer more job opportunities for outstanding kabaddi players.
- It is recommended that special efforts should be made to make Kabaddi more popular.
- Along with cricket, football and kabaddi are also becoming popular and hence opens up scope for India to develop these two sports by identifying talent from Grassroots.
- Initiative taken by Government should now focus on Football and Kabaddi to a greater extend.
- Development of infrastructure is needed to bring up the football and kabaddi at country level.
- Finally kabaddi can exclusively position by India as it is one of the traditional sports which now can be popular at global level.

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53 मूलभूत हक्कांपैकी स्वातंत्र्य आणि समता या आधारभूत तत्त्वांच्या आधारे लोकशाहीची जपणूक करणे आपली जबाबदारी

सौ. वर्षा नितीन जपे
सहाय्यक प्राध्यापिका व तत्त्वज्ञान विभाग प्रमुख
आर. एस. मुंडले धरमपेठ कला व वाणिज्य महाविद्यालय, नागपुर.

गोषवारा:- लोकशाही म्हणजे लोकांनी लोकांसाठी चालवलेले राज्य होय. जेव्हा आपण लोकांनी लोकांसाठी म्हणतो तेव्हा त्यात संपूर्ण समाज अपेक्षित असतो. समाज म्हंटला की व्यक्ती आणि व्यक्तींमधील संबंध त्यात महत्त्वाचे असतात. सामाजिक मूल्ये महत्त्वाची असतात. त्यातही स्वतंत्रता आणि समता यांचे स्थान लोकशाहीत अत्यंत महत्त्वाचे आहे. किंबहुना या दोन मूल्यांच्या पायावरच लोकशाही उभी आहे. ही दोन्ही मूल्ये लोकशातीत हक्क स्वरूपात स्वीकारली आहेत. हक्कांबरोबर कर्तव्य येतात. हे दोन्ही हक्क आपली जबाबदारी आहेत.

Key-words (सूचनक शब्द):- लोकशाही, मूलभूत हक्क, स्वातंत्र्य, समता या आधारभूत तत्त्वांच्या आधारे आपली जबाबदारी

परिचय –

भारत १५ ऑगस्ट १९४७ रोजी स्वतंत्र झाला आणि भारतीय समाज व्यवस्थेत लोकशाही राज्यव्यवस्था स्वीकारण्यात आली. भारतीय लोकशाहीचे संवर्धन करण्यासाठी लोकशाहीचे मूलाधार ठरवून त्यांचे प्रकटीकरण भारताच्या संविधानात करण्यात आले. भारतीय समाजव्यवस्थेच्या विविध अंगांना भारताच्या संविधान स्पर्श केला आहे. या संविधानात भारतीय लोकांच्या सार्वभौमत्वाला अनन्यसाधारण महत्त्व दिले आणि याची प्रतीति आपणास भारतीय संविधानाच्या प्रास्ताविकातच येते. “आम्ही भारताचे लोक, भारतीय लोकशाही, न्याय, स्वातंत्र्य, समता, बंधुता या मूल्यांवर आधारित संवर्धित करण्याचा प्रयत्न करू असा संकल्प करतो,” असे संविधानाच्या प्रास्ताविकात सुरूवातीस म्हंटले आहे. जरी संविधान सभेतील लोकांनी हे संविधान तयार केले असले तरी भारतीय लोकांच्यावतीने संविधानसभेने पार पाडलेली ही जबाबदारी आहे अशी त्यांची भावना असते. त्यामुळेच संविधनाच्या प्रास्ताविकात भारताचे संविधान भारतीय लोक अंगिकृत आणि अधिनियमित करून स्वतः प्रत अर्पण करीत आहेत अशी त्यात स्पष्ट नोंद आहे.”

लोकशाहीचा अर्थ :-

लोकशाहीचा अर्थ आहे लोकांची सत्ता. मूळ ग्रीक संज्ञा 'Demokratia' दोन ग्रीक शब्दानुसार बनली आहे. 'Demos' चा अर्थ आहे लोक आणि 'Kratia' चा अर्थ आहे सत्ता. अशा प्रकारे लोकशाहीचा अर्थ होतो लोकांची सत्ता.

आव्हर ब्राऊन यांनी म्हटले आहे की, ‘लोकशाही राज्य असा समुदाय असतो की, ज्यात जनता सामर्थ्यवान असते.’ (According to Ivor Brown, 'A democratic state is a community in which the masses are powerful. लार्ड ब्राईस यांनी म्हटले आहे की, ‘लोकशाही ही संज्ञा हेरा- डॉट्सपासून आजपर्यंत अशा शासनाच्या प्रकाराबाबत वापरली जाते की, ज्या शासनात राज्याची राज्यकारभारविषयक सत्ता वैधानिकदृष्ट्या कोणत्याही एका वर्गाकडे किंवा वर्गांकडे दिलेली नसते तर ती समाजातील सर्व सदस्याकडे असते. (According to Lord Bryce “ The word democracy has been used ever since the time of Herodotus to denote that form of government in which the ruling power of the state is legally vested not in any particular class or classes, but in the members of the community as a whole.”

1) शासन 2) प्रशासन 3) न्यायव्यवस्था 4) पत्रकारिता हे लोकशाहीचे चार स्तंभ मानले जातात.

लोकांनी लोकांसाठी चालवलेले राज्य अशी ही संकल्पना असल्याने यात व्यक्तीचे मूलभूत हक्क, स्वातंत्र्य व समता या संकल्पांना अत्यंत महत्त्वाच्या आहेत. ह्या तीनही संकपना लोकशाहीची आधारभूत तत्त्वे आहेत. आपण एक- एक संकल्पनेचा विचार करू.

मूलभूत हक्कांचा सिद्धांत - मूलभूत हक्कांना लोकशाहीच्या तत्त्वज्ञानात अनन्यसाधारण स्थान आहे याचे मुख्य कारण हे मूलभूत हक्क लोकशाहीच्या तत्त्वज्ञानाचा गाभा आहेत. लोकशाहीचा विनाश हा मूलभूत हक्कां नष्टतेने होईल. समाजातील अंतिम टप्प्यातील लोकांच्या कल्याणासाठी लोकशाहीत मूलभूत हक्कांचा वापर एक साधन म्हणून केला जातो. मूलभूत हक्कांमध्ये खालील हक्कांचा विचार केला जातो.

१) स्वातंत्र्याचा हक्क
२) समानता किंवा समतेचा हक्क
३) शोषणाविरुद्धचा हक्क
४) धर्मस्वातंत्र्याचा हक्क
५) सांस्कृतिक व शैक्षणिक हक्क
६) घटनात्मक उपायांचा हक्क

यापैकी आपण संशोधन पेपरच्या निमित्ताने केवळ स्वातंत्र्य आणि समता या हक्कांचा विचार करू.

स्वातंत्र्याचा हक्क –

स्वातंत्र्य हे एक मूल्य असून लोकशाहीचा तो एक आधारस्तंभ आहे. लोकशाहीत व्यक्तिस्वातंत्र्य, संघटना स्थापन करण्याचे स्वातंत्र्य, श्रद्धा स्वातंत्र्य व अभिव्यक्तीचे स्वातंत्र्य या सारख्या मूलभूत स्वातंत्र्याना संरक्षण दिले आहे. प्रत्येक व्यक्ती ही स्वतंत्र आहे, ती कोणाची आणि कधीही गुलाम नाही. पूर्वीच्या काळी मानवाला गुलाम म्हणून वापरले जात असे. त्याचा एक

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साधन म्हणून विचार केला जात असे. व्यक्तीची स्वतंत्रता तिच्यासाठी अत्यंत गरजेची आहे. जे सत्ताधारी असतात ते प्रत्यक्षाप्रत्यक्षपणे व्यक्तीला गुलाम बनवू शकतात त्यामुळे रुसो म्हणतात की, 'आपल्या बांधवांवर अधिकार गाजविण्याचा निसर्गाने कुणालाही अधिकार दिलेला नाही.' तसेच ते असेही म्हणतात की, 'मानव ज्यावेळी स्वातंत्र्याचा त्याग करतो त्यावेळी तो आपल्या मनुष्यत्वाच्या हककाचा त्याग करतो, आपल्या मानवी कर्तव्यांचा त्याग करतो.' लोकशाही शासन प्रणालीत स्वातंत्र्याची जपणूक करण्यासाठी प्रत्येक पिढीला लढा द्यावा लागला. स्वातंत्र्याची ज्योत प्रत्येक पिढीने तेवत ठेवली.

ह्या स्वातंत्र्यात राजकीय स्वातंत्र्य, चर्चा किंवा अभिव्यक्तीचे स्वातंत्र्य, व्यक्तिस्वातंत्र्य, संघटना स्थापन करण्याचे स्वातंत्र्य व श्रद्धा स्वातंत्र्य याचा विचार झाला.

राजकीय स्वातंत्र्य याचा अर्थ राज्यकारभारात प्रत्येक व्यक्तीला सहभाग घेता आला पाहिजे. सत्तास्थान मिळविण्याचा अधिकार प्रत्येक व्यक्तीला असला पाहिजे. सार्वजनिक प्रश्न, राज्याशी संबंधित प्रश्न ती मुक्तपणे मांडू शकली पाहिजे. हे प्रश्न मांडताना ती व्यक्ती कोण आहे, तिचे सामाजिक, आर्थिक स्थान कोणते आहे हे महत्त्वाचे असता कामा नये.

चर्चा किंवा अभिव्यक्तीचे स्वातंत्र्य यात प्रत्येक व्यक्ती ही मुक्तपणे आपले विचार मांडू शकली पाहिजे, तिच्यावर कोणताही दबाव असता कामा नये.

श्रद्धा स्वातंत्र्य यात प्रत्येक व्यक्तीला तिच्या श्रद्धास्थानाप्रमाणे आध्यात्मिक कार्य करता आले पाहिजे. त्यात तिला कोणते ही बंधन असता कामा नये.

समानता किंवा समतेचा हक्क – हे देखील एक मूल्य आहे. समता याचा अर्थ समानता हा होय. समानता हे मूल्य समाजात कसे पाळले जावे संबंधी अनेक विचार मांडण्यात आले आहेत. 'व्यक्ती तितक्या प्रकृती' अशी म्हण आहे. मग अशा परिस्थितीत समता आणायची कशी असा प्रश्न पडू शकेल. पण जेव्हा आपण व्यक्तीचे हे भिन्नत्त्व दर्शवितो तेव्हा तेथे व्यक्तीची निसर्गाने दिलेली शारीरिक, मानसिक व बौद्धिक क्षमता दर्शवितो. पण व्यक्तीचा जेव्हा सार्वजनिक दृष्टिकोनातून विचार केला जातो तेव्हा तिला जे सामाजिक, आर्थिक व राजकीय वातावरण लाभते ते सर्व व्यक्तींसाठी समान असले पाहिजे, त्यात समता असली पाहिजे. वर्णभेद, वंशभेद, जातभेद, लिंगभेद आणि आर्थिक विषमता या गोष्टी टाळल्या तरच लोकशाही नष्ट होणार नाही. या सर्व घटकांतून विषमता दिसते त्यामुळे हे घटक नष्ट केले पाहिजेत.

येथे हा देखील एक मुद्दा लक्षात ठेवला पाहिजे की, समानता किंवा समता म्हणजे सर्वांसाठी समान असे म्हंटले जाते पण सर्वांसाठी समान हे देखील बरेचदा न्याय्य ठरत नाही. कसे ते उदाहरणाने बघू. दोन व्यक्ती आहेत. एक खाण्यात कमजोर आहे व एक व्यवस्थित खाऊ शकते मग अशा परिस्थितीत चार-चार पोळ्या दोघींना खाण्यासाठी दिल्या तर खाण्यात कमजोर व्यक्तीसाठी ते त्रास देणारे ठरेल. मग समानता म्हणजे नेमके काय? हा प्रश्न निर्माण होतो. परंतु येथे हे लक्षात घेतले पाहिजे की ही त्याची नैसर्गिक गरज आहे आणि त्यामुळे येथे व्यक्तीनुरूप बदल योग्य आहे. परंतु सार्वजनिक जीवनात मात्र समानता हे मूल्य सामाजिक, आर्थिक व राजकीय दृष्टिकोनातून विचारात घेतले जाते.

समता किंवा समानता हा हक्क लोकशाहीचा पाया आहे. हे तत्त्व जर लोकशाहीत नसेल तर लोकशाही कोलमडेल. 'लोकांनी लोकांसाठी' हे जर लोकशाहीचे ब्रीद वाक्य असेल तर मग लोकांमध्ये समता नितांत गरजेची आहे. किंबहुना त्या शिवाय लोकशाहीच नाही.

येथ पर्यंत आपण हे दोन्ही हक्क किती महत्त्वाचे आहेत ते बघितले. पण येथे एक चिंतन होणे गरजेचे आहे की, हक्काची दुसरी बाजू कर्तव्य तिचा विचार यात प्रथम होता का? याचे उत्तर नकारार्थी आहे. याचा अंतर्भाव नंतर करण्यात आला. असे निदर्शनास आले की, व्यक्ती ही हक्कांच्या बाबतीत जागृत असते, कर्तव्यांच्या बाबतीत बरेचदा सजग नसते आणि येथे आपली जबाबदारी सुरू होते.

स्वातंत्र्याचा अर्थ स्वैराचार नाही हे आपण समजले पाहिजे. 'मला वाटेल तसे, मी या देशात वागू शकतो' असा स्वातंत्र्याचा अर्थ आपण करता कामा नये. अनेक देशांमध्ये लोकशाही नक्कीच आली पण ती टिकू शकली नाही. याचे कारणच स्वातंत्र्याचा त्यांनी लावलेला अर्थ होय. खऱ्या अर्थाने स्वातंत्र्याबरोबरच जबाबदाऱ्या आणि कर्तव्ये व्यक्तीशी निगडीत असतात. आत्म-नियंत्रण आणि सतत सतर्कतेच्या अनुपस्थितीत, स्वातंत्र्याची संकल्पना अपूर्णच राहील. त्याचा परिणाम म्हणून लूटमार, खून, घोटाळे, शोकांतिका, अत्याचार, व्यभिचार, हिंसाचार अशा असंख्य घटना दररोज आपल्यासमोर येतात. खऱ्या अर्थाने स्वातंत्र्य तेव्हाच प्राप्त होऊ शकते जेव्हा आपली आत्म-जागरूकता सर्वसमावेशक होईल आणि संपूर्ण समाजाची आणि संपूर्ण जीवनाची चिंता आपल्या स्वतःच्या चिंतेचा एक भाग बनेल. मी स्वतंत्र्य देशाचा नागरिक आहे तर मी देशासंबंधीची कर्तव्ये मी पाळली पाहिजेत. हे वर्तन स्वातंत्र्याच्या हक्काशी संबंधित आहे हे सदा ध्यानात असले पाहिजे.

समता किंवा समानतेचा हक्क जसा अत्यंतपूर्ण महत्त्वाचा आहे तशीच त्याची दुसरी बाजू देखील विचारात घेतली पाहिजे. समता ही माझ्या बाबतीत लागू होत आहे किंवा नाही या बाबतीत व्यक्ती जागरूक असते पण मी दुसऱ्याच्या बाबतीत या तत्त्वाचे पालन करते का? याचा विचार फार तुरळक ठिकाणी केला जातो. माझ्याशी संबंधित व्यक्तीशी व्यवहार करिताना ती कोणत्या वर्णाची, वंशाची किंवा आर्थिक दृष्ट्या कमजोर आहे का? या घटकांचा विचार न करिता आपण व्यवहार करतो का? हे आपणच आपले तपासले पाहिजे व या विषमतेच्या चष्म्याशिवाय व्यवहार केला पाहिजे. ही आपली नैतिक जबाबदारी आहे. शासनप्रणालीत याचे पालन न केल्यास कायद्याने शिक्षेची तरतूद देखील केली आहे.

स्वातंत्र्याचा हक्क व समतेचा हक्क ही दोन्ही मूलभूत तत्त्वे लोकशाहीच्या संदर्भात आहेत. या दोन्ही तत्त्वांचा देखील आपसात घनिष्ट संबंध आहे. स्वातंत्र्याशियाय समता अशक्य आहे तर समतेशिवाय असेल तरच स्वतंत्रतेला अर्थ आहे.

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थोडक्यात असे म्हणता येईल की, मूलभूत हक्कांपैकी स्वातंत्र्य आणि समता या आधारभूत तत्त्वांच्या आधारे लोकशाहीची जपणूक करणे आपली जबाबदारी आहे. ते केवळ आपले हक्क नाहीत तर कर्तव्य रूपात त्यांचे पालन होणे गरजेचे आहे, किंबहुना असे म्हणावेसे वाटते की, या हक्कांचा कर्तव्य रूपात पालन होणे अनिवार्य आहे. अन्यथा लोकशाही कोलमडेल यात शंका नाही.

संदर्भ ग्रंथ –

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Contact : - 8484818000
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E-mail :
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आर. एस. मुंडले धरमपेठ कला व वाणिज्य महावि
नागपुर, जि. नागपुर.

केळवे माहीम येथे राहत असलेल्या श्री वामनराव व लक्ष्मीबाई दांडेकर या अतीशय संस्कारक्षम दाम्पत्यास २० एप्रिल १८९६ रोजी अपत्य प्राप्ती झाली. श्री शंकराच्या कृपेमुळेच या मुलाचा जन्म झाला असल्यामुळे मुलाचे नाव 'शंकर' असे ठेवण्यात आले. लाडाने सर्व त्याला 'सोनू' म्हणत असत. सोनू दीड वर्षांचा असताना त्याच्यावर असलेल्या मातेचे छत्र हरपलं वडिलांनीच सोनू सकट सर्व भावंडांचा सांभाळ यापुढे करायचा होता. सोनू अत्यंत कुशाग्र बुद्धीचा होता. संध्या, वैश्वदेव आदीलहानपणीस त्यांन शिकून त्यांनी शिकून घेतलं होतं शुभंकरोति, वडीलमाणसांस नमस्कार इत्यादी सर्व सुसंस्काराचेच रूपांतर फार मोठ्या वटवृक्षात व्हावयाचे होते. सूर्यनमस्कारादी नियमित केल्यामुळे शरीरही तेजपुंज झाले होते. मराठी चौथी झाल्यावर सोनूला त्याच्या थोरल्या वहिणीकडे पुण्यास ठेवायचे ठरले. त्याच सुमारास जिजींवर अकाली वैधव्याची कुऱ्हाड कोसळली होती. मग जिजींची मुले व सोनू असे एकत्र जिजींच्या प्रेमळ पण कडक शिस्तीत वाढू लागले. जिजींची मुले त्यांना 'मामा' म्हणत असत म्हणूनच नंतर ते सर्वांचेच सोनू मामा झाले.

जिजींनीच सोनूमामांचे श्री विष्णुबु यांच्याशी नाते जोडले. जोगमहाराजांच्या प्रव नित्य जात. जोगबुवा हे अंतर्बाह्य शुचितेचा होते. जिजींसकट सर्वांनीच जोगमहाराजांकडून स्वीकारला व सोनू मामाही पंढरीचे वारक यापुढे त्यांचा जीवनप्रवास सद्गुरूंच्या छत्र व्हायचा होता. नंतरच्या काळात सोनूमामांनी या गुरूंचे अत्यंत रसाळ असे चरित्र लिहिले. अ शरीर व मनाची दृढता वाढेल असे व्यायाम व ग्रं करीत मामांचे जीवन आकार घेत होते. त्यात त्यांच्या अखेरच्या क्षणात मामांनी ब्रह्मचर्यव्रता करण्याचे वचन दिले. १९१२ साली मामा मॅट्रि वयाच्या १६व्या वर्षी त्यांचे पितृछत्र हरपले. जीवनाला आकार देण्याचं श्रेय त्यांच्या आ गुरुकडे जातं ते म्हणजे भारतीय धर्मशास्त्र, व पाश्चात्य तत्त्वज्ञानाचा सखोल अभ्यास गुरुदेव रानडे. सोनू मामांना सांप्रदायिक रित्य शब्दांचे व्यापकपण जोगबुवांकडून कळले तर पाश्चात्त्य तत्त्वज्ञानातील तौलनिक दृष्टी गुरु यांच्याकडून शिकायला मिळाली. गुरुदेव रानडे

डित नसून स्वतः आध्यात्मिक क्षेत्रातील अनुभवसिद्ध ाधक होते. अभ्यासाला साधनेची जोड मिळाल्यानंतर ज्ञान पूर्णत्वास पोहोचते. १९१९ साली मामा त्त्वज्ञान घेऊन येणे झाले व न्यू पूना कॉलेजात प्राध्यापक ाले.शिक्षण प्रसारक मंडळ, पुणे या मंडळात व्याख्यान ण्यासाठी डॉ. राधाकृष्णन् आले असताना ते ोनोपंतांविषयी म्हणाले,

"I see nothing less in Prof. Dandekar a ue follower of my friend Prof. R.D. Ranade – a reat philosopher of today."

वरील उद्गारावरून तरुणपणीच त्यांची योग्यता केती होती, हे स्पष्ट होते.

नर जन्म मिळाल्याचं सार्थक सर्वेश्वराच्या वेतूनच करता येईल या दृष्टीने जीवनाची दिशा ठरवून ोनू मामांनी वडीलबंधूंना कळवून आपल्या हक्काच्या ालमत्तेवर पाणी सोडले. आजच्या काळात स्वतःची ालमत्ता ईश्वरसेवेसाठी आयुष्य वेचण्यात अडचण ठरेल हणून नको म्हणणारे सोनूमामा असामान्य नाहीम्हणायचे र काय? मामा कुठल्या लौकिक मोहांना, उपाधींना ळी पडले नाहीत कारण ते मूळचेच विरक्त होते. त्या ाळात त्यांनी गीता त्यावरची भाष्यग्रंथे, ज्ञानेश्वरी इत्यादी ंथांचा खूप अभ्यास केला. ते अंतर्यामी देशभक्त ही ोते. ईश्वरनिष्ठांची आवश्यकता राष्ट्रीय बाणा अंगात रण्यास आहे हे त्यांनी सांगितले. आयुष्यभर स्वदेशी स्तूंचा वापर केला. जोग महाराजांच्या निधनानंतर ाळंदीच्या वारकरी शिक्षण संस्थेची जोपासना करायची बाबदारी त्यांनी स्वीकारली. या शिक्षण संस्थेत फक्त ुष्क ज्ञान चर्चा शिकविली जात नसून सांप्रदायिक भ्यास व भक्तीचे महत्त्व शिकविले जात असे. अशा ऱ्हेची निष्ठावान आचार विचारांची महाराष्ट्रातील ही कमेव संस्था आहे व संपूर्ण लोकाश्रयावरती चालते. हे ामांच्या जीवनाचएक महत्त्वपूर्ण कार्यच मानायला हवे. ामांनी आपल्या आयुष्यात अनेक जबाबदारीची पदे मर्थपणे सांभाळली व ज्ञानदानाचे कार्य सुद्धा मनापासून केले.१९४० मध्ये ते रुईया कॉलेजचे उपप्राचार्य म्हणून नियुक्त झाले व १९४५ मध्ये स. प. महाविद्यालयाच्या प्राचार्य पदाची धुरा त्यांनी सांभाळली.

ज्ञानदान, ईश्वरभक्ती व त्याचा प्रसार, प्रचार करीत कर्ममय जीवन जगत ९ जुलै १९६८ रोजी मामांनी देह सोडला. १० जुलै १९६८ ची अपूर्व अंत्ययात्रा सहस्त्रावधींच्या मेळाव्यासह आळंदीला गेली. लोकांचे अश्रू थांबत नव्हते. इंद्रायणी स्तब्ध झाली होती. "आणि मी माझे एसी आठवण। विसरले जयाचे अंतःकरण। पार्था तो संन्यासी जाण" ज्ञानदेवांची ही ओळ जणू साकार झाली होती.

१) वैकुंठवासी मामांनी आपल्या संपूर्ण जीवनातून लोकांना काय आदर्श दिले? त्यांच्या कार्याचा विचार करणे उचित होईल. थोडक्यात सांगायचे झाले तर वैकुंठवासी मामांनी आयुष्यभर त्यांना मनोमन पटलेल्या संतप्रेरित वैदिक धर्माचा प्रसार कीर्तन प्रवचनांमधून केला. ते स्वतः त्यासाठी एकनिष्ठपणे वारकरीपंथाचे व्रतस्थ जीवन जगले. पंढरीच्या वारीचा नेम त्यांनी शेवटपर्यंत सांभाळला. त्यांच्यासारख्या विवेकवैराग्यपूर्ण निरूपणकाराचा लोकांवर विलक्षण प्रभाव झाला. धर्माला प्राप्त झालेली ग्लानी दूर करण्याचा प्रयत्न त्यांनी स्वतः केला.'आधी केले मग सांगितले' या उक्तीप्रमाणे आचरण केल्यामुळे त्यांचे शब्द लोकांच्या अंतःकरणाचा ठाव घेत असत.

२) मने सुसंस्कारित करण्याचे कार्य चार-पाच तास भरणाऱ्या शाळांच करू शकत नाही तर त्यासाठी गुरु शिष्यांचा सहवास आवश्यक आहे. आपल्या आचरणातूनच तत्त्वे शिष्यांच्या मनावर बिंबवायची असतात हे ध्यानात ठेऊन धर्मप्रचारक निर्माण करण्याचं कार्य वैकुंठवासी मामांच्या प्रेरणेने सुरू झालेल्या वारकरी शिक्षण संस्थेने स्वीकारले. मुलांच्या सर्वार्थाने सर्वांगीण विकासाची काळजी या संस्थेने वाहिली. त्याकाळी

आणि आजही जो उठतो तो मूल्ये ढासळत असल्याची खंत व्यक्त करीत असतो, पण मुल्ये रुजतील व टिकतील असे आचरण स्वतः करण्याचे वरेचदा टाळतो. अशा या परिस्थितीत मामांचे कार्य बहुमूल्य आहे यात शंका नाही.

३) वैकुंठवासी मामांनी धर्मशुद्धीचे कार्य केले. त्या काळात उपयुक्ततावाद व बुद्धिवाद खूप फोफावला होता. मराठी समाजाच्या श्रद्धा जवळजवळ उध्वस्त झाल्या होत्या. जे जे पाश्चात्य ते सर्व स्वीकारार्ह जे आमचे ते त्याज्य हा गैरसमज दूर करण्याचे कार्य त्यांनी केले. संत साहित्य, अद्वैत वेदांत इत्यादींचे रहस्य सोप्या सहज भाषेत लोकांना समजाविले. त्याच वेळेस पाश्चात्य तत्त्वज्ञानाचे सौंदर्य ही मराठी श्रोत्यांना उलगडून दाखवले. कीर्तनातून सॉक्रेटिस, प्लेटो, ॲरिस्टॉटल उद्धृत करणारे मामा लोकांना खूप आवडले असले तर त्यात नवल ते काय? बुवाबाजी, नवससायास इत्यादींच्यात अडकलेल्या समाजाला त्यातून बाहेर काढण्याचा प्रयत्न त्यांनी केला. अशिक्षित वर्ग सुसंस्कारित करण्याचे मोठे कार्य मामांनी आयुष्यभर केले. श्रद्धा व अंधश्रद्धा यातील फरक लोकांसमोर ठेवून भक्तीचा मार्ग कसा अवलंबिता येतो याची शिकवण त्यांनी दिली.

४) वारकऱ्यांना त्यांची, त्यांच्या संप्रदायाची व ते आचरत असलेल्या नीतिमूल्यांची नव्याने ओळख करून दिली. वारकरी अडाणी आहेत, अशिक्षित आहे, भोळाभाबडा आहे हा गैरसमज दूर करून त्यांचे जीवन किती उच्च मूल्यांवर अधिष्ठित आहे हे मामांनी सांगितले. त्यांच्यामुळेच 'मी वारकरी आहे' असे वारकरी गर्वाने म्हणू लागला.

५) प्राकृत भाषांतील ग्रंथांना अभ्यासानीय शास्त्रीय ग्रंथाची प्रतिष्ठा त्यांनी मिळवून दिली. विद्वानांची आस्था संस्कृत ग्रंथांवरच होती. अव्याहतपणे मामांनी ज्ञानेश्वरी, एकनाथी तुकारामांची गाथा या वारक असलेल्या प्रस्थानत्रयीवर इतकी केली की, सामान्य लोकांची हेलावलीच पण पंडितांनाही वि पडले. मामांच्या मनात संस्कृत तर होताच पण मराठी प्राकृत भाषे माया होती. मातृभाषेचे महत्त्व होते.

६) मामांनी वारकरी व सज्जनगड यांच्यातील विरोधाची धार बोथट के वचनांचा मामाआपल्या निरूपणा करायचे व दासबोध, मनाचे श्लोक परमार्थसाधकाने अवश्य वाचावे असत.

७) सहजवाणीने मामांउपदेश करि आयुष्यातील दुःखाच्या क्षणी गीता व विचारांची आवश्यकता असते. विचार मनाचे संतुलन ढळू देत नाही विचार जाणून घ्यावे असा उपदेश असत.

वैकुंठवासी मामांनी आयुष्यभर जे समाज व्रत स्वीकारले त्यात ज्या प्रमुख गोष्टींवर भर पुढील प्रमाणे-

१) तत्त्वज्ञानाची माणसाच्या जीवनात इतकीच आवश्यकता आहे नाहीत पशुतुल्य होईल.

२) बुद्धीच्या शुद्धीपेक्षा चित्तशुद्धी महत्त्वा

३) खरा ईश्वरभक्त चित्त शांत ठेवून अडचणीवर मात करून शुद्ध भावने जगत असतो.

४) आपले सर्वस्व ओतून देवावर भरव ठेवून कार्य करावे व त्या कार्याच्या योगायोग म्हणून हसतमुखाने स्वीक

संपर्कात आलेल्या सर्व व्यक्तींवर जाती, धर्म व वर्ण निरपेक्ष प्रेम करावे.

आपल्या आनंद-दुःखाचे, आकर्षण-तिरस्काराचे विषय सतत अधिकाधिक उदात्त, उन्नत व व्यापक व्हावे.

प्रत्येकाने प्रतिदिन कठोर आत्मपरीक्षणास सिद्ध व्हावे. ते म्हणायचे,"Live an examined life and be a Socrates dissatisfied rather thanbeing a pig satisfied."

वैकुंठवासी मामांच्या वाट्याला आलेल्या अनेक मिका त्यांनी स्वीकारल्या व यथाशक्ती पार पाडल्या. सर्व व्यापांतून वेळ काढून मामांनी बरंच लेखन ही लं. त्यांचा लिखाणात गुणात्मक दर्जा कुठे आणि धीही कमी झालेला नाही. त्यांचा 'वारकरी संप्रदाय' लेख,'श्री. ज्ञानदेव चरित्र','ईश्वरवाद' हे पुस्तक, ानदेव व प्लेटो' हा ग्रंथ,'प्रसाद' मासिकांतून वेळोवेळी मंगांवर लिहिलेली निरूपणे, जोगमहाराजांचे चरित्र, र्थ ज्ञानेश्वरी व त्यातील सुमारे दीडशे पानांची प्रस्तावना ादी याची साक्ष देण्यास पुरे आहेत. मामांसारखे भक्त भगवंतालाही प्रिय होतात.

"जे पुरुषार्थ सिद्धी चौथी। घेऊनि आपुलां हातीं।
ागाला भक्तीपंथी। जगादेतु।। कैवल्याचा अधिकारी।
मोक्षाची सोडी बांधी करी। कीं जळाचिये परी।
तळवटु घे। म्हणोनि गा नमस्कारुं।.
तयातें आम्ही माथां मुगुट करू।
तयांची टांच धरूं। हृदयीं आम्हीं।।

वैकुंठवासी मामा आता आपल्यात नाहीत. त्यांनी त्यांचे गुरू जोगवुवा यांनी स्वतःचा मठ उभारला ाही. त्यांच्यानंतरत्यांच्या कार्याचे काय व्हावं, काय ाही, काहीही सांगितले नाही. स्वतः करता आले ते ाचारिले. आज जे आराजक माजलय त्यात वै. ामांसारख्या विभूतीचे स्मरण, चिंतन, अनुकरण करण्याचे प्रयत्न केल्यास नव्या वाटा सापडण्यास अडचण पडू नये. आज आमच्याकडे वाह्य लौकिकाचा पसारा खूप वाढलाय पण अंतःकरणात डोकावून बघण्यासही आम्हाला सवडच नाही. विचार शून्यतेच्या प्रगाढ समधीत आम्ही पार गाडले गेलोय. मामांसारखंच कुणीतरी येऊन त्यातून आम्हाला काढण्याची आवश्यकता वाटतेआहे. माझी ईश्वरचरणी हीच प्रार्थना आहे की, आमच्यातूनच कुणाला तरी मामांचा मार्ग जवळचा वाटावा. त्याचं अनुकरण करावसं वाटावं व उत्तम जीवन जगण्याची प्रेरणा कुणालातरी होवो. बहुतेक सारेच प्रश्न सुटतील- असे झाले तर.

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