Peer reviewed Journal Impact Factor: 7.265 ISSN-2230-9578

Journal of Research and Development

A Multidisciplinary International Level Referred Journal

August 2022 Volume-14 Issue-11

Chief Editor

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Published by-Chief Editor, Dr. R. V. Bhole, (Maharashtra)

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Digital Banking in India

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DOI- 10.5281/zenodo.7042631

Abstract

The banking system in the country has become so technologically advanced that almost all banking services are delivered through electronic platforms. Digital banking as a new business model, offered through multiple integrated channels of electronic banking services is the future of every banking sector in a century when technological innovation knows no bounds. The challenge of the banking sector in India remains the use of electronic banking services by customers. This paper covers role of digitization in Indian banking, factors affect the scope of digital banking in India, Challenges faced by the users of Digital Banking services in India, benefit of digital banking and Innovation of digital banking in India.

Key words: Digital Banking , Innovations Technology

Introduction

Digital banking is the use of the internet, mobile phones, and other electronic mediums as a delivery channel for banking services, which includes all traditional services such as balance enquiry, printing statement, fund transfer to other accounts, bills payment and new banking services such as electronic bill presentment and payment without necessarily visiting a bank. The invention of ATMs and credit cards paved the way for the digitization of the banks. The commercial evolution of the internet in the early 1990s completely overhauled the banking sector introducing the world to the online banking services. This is when traditional street-side banks started considering ideas to deliver restricted online bank services to cut down the cost of operations. When these efforts proved beneficial and were acknowledged by all, numerous banks ideate to create their own cyber presence with newly designed website featuring the various services like opening new accounts online, necessary form download and processing loans. This has equally affected the hiring process for the professionals in the banking sector.

Apart from the banking examinations that one need to qualify, career in the banking for fresher requires technology experts. The Digital banking is becoming increasingly popular, it is necessary to survey factors affect their customer views, in a systematic way. Thus, the factors affecting customer satisfaction in the internet banking system need to be investigated in further studies. On the other hand, cause and effect relationships of these factors can impact on knowing internet banking customers' point of view and improve internet banking quality services. Building long-term relationships with customers has become a critical strategy for most financial institutions in today's competitive financial markets. The banking industry must develop profitable, long-term relationships with its customers in order to survive in the competitive retail banking environment. Several studies reveal that a bank's profitability is closely associated with customer loyalty and retention which is based on customer relationship.

Objectives of the Study

1. To study the role of digitization in Indian banking.
2. To study the challenges of digital banking in India.
3. To study the Innovations in Digital Banking
4. To study the factors affect the scope of digital banking in India.

Research Methodology

The present study is descriptive in nature and is based on secondary data. The data has been extracted from various sources like research articles, publications from Government of India, various bulletins of RBI and authenticated websites.

Role of Digitization in Indian Banking

Banks in India as a whole were very reluctant to adopt the changes brought about by technological advancement. A number of factors brought about the mechanization and digitization in banking industry in India. The putting in place standard cheque encoders was the first step forward in digital transformation in banking. Magnetic Ink Character Recognition (MICR) helps in the sorting and processing of cheques with each bank branch having an MICR code. The next step was more of a necessity than an innovation. Banking is a respective job and therefore a labor intensive one where the worker is prone to making mistakes. In order to minimize errors and speed up the process, banks began using computer technology with standard personal computers and then set up their own local are networks (LAN). As the networks grew and banks began to connect together, Core banking came into being. Centralized Online Real time Exchange (CORE) banking thus allowed customers to perform financial transactions and access their account from any of the participating bans branches. These services made it easier for customers to operate their account and slowly led to the coining of the phrase: Anytime, Anywhere Banking". Then Automated Teller Machine (ATMs) arrived on the scene and electronic fund transfers were made possible. Online banking and Tele banking made their appearance in the 2000's and different modes of online fund transfers were instituted like Real Time Gross Settlement (RTGS), Immediate Payment System (IMPS). National Electronics Fund Transfer (NEFT) and National Electronic Clearing Service (NECS). Recent years have seen the growth in mobile banking services and other innovative services online. The role of digitization of banking in India that began in the 1080's has certainly come a long way.

Factors Affect the Scope of Digital Banking in India

A. **Education:** A lack of knowledge about banking in itself is a hurdle. Many parts of India still struggle with very low literacy rate. The lack of knowledge about computers and the use of the internet is a challenge.
B. **Training:** There is much resistance from within the banking industry itself. Employees are not trained in the use of innovative technology. They are unable to utilize different features of digital banking.
C. **Fear:** There are a number of unfounded fears individuals have about the use of the internet. Cases of fraud are often increases and this adds to the fear factor, resulting in a number of ill informed customers being nervous to use digital banking.

Challenges of Digital Banking in India

1. Internet connection and a smart device such as mobile phone, tablet or personal computer is a prerequisite to use these services.
2. The digital literacy in India is still very low. According to the Internet and Mobile Association of India Report (IAMAI), 2016, Approximately 40% population is living below poverty line, illiteracy rate is not more than 25-30% and digital literacy is almost no-existent among more than 90% of India‟s population.
3. Security of user's information has been a matter of concern since the inception of electronic transactions and the same may hamper their adoption as well.
4. Difficulty in understanding the usage of the digital banking services. Senior citizens preferring the traditional banking systems and people who are not tech-savvy are more prone to this difficulty. According to a report on Encashing on Digital: Financial Services by 2020, 33% of banked population is not using digital banking as they find it complex to understand and operate .
5. According to the same report, 23% of banked population feel that digital banking services lack transparency in the form of hidden transaction charges.

Innovations in Digital Banking

1. **Automated Teller Machines (ATMs)**
   Automated Teller Machines (ATMs) also known as an automated banking machine (ABM) is an electronic telecommunications device that enables the customers of a bank / financial institution to perform financial transactions, particularly cash withdrawal, without the need for a human cashier, clerk or bank teller. The other functions performed by an ATM are check deposit, printing of receipts, balance enquiry, generating PIN, Passbook printing and so on.
2. **National Automated Clearing House (NACH)**

NACH is the centralized web-based payment solution that helps the banks, corporate sectors, government and other financial institutions to handle bulk payments. High volume transactions such as dividend and salary pay by the corporate, subsidies and pensions payment by the government and such can be easily done through NACH. The system will also assist the financial institutions and corporate to receive high volume payments as well. High volume payments that consist of water, electricity, telephone bills, loan amounts, EMIs, mutual fund investments payments can be received through NACH solution. The system is launched by National Payment Corporation of India, also known as NPCI.

3. Credit and Debit Cards

This facility promote cashless purchasing i.e. enables the customers to purchase goods without holding cash. A credit card allows the customer to borrow money within settled limits and Credit Card Company charged certain amount of interest for the money being used for purchasing by the customer. However, the debit card linked directly to the customer account and the money debited automatically from the customer account on every purchase.

4. National Electronic Fund Transfer (NEFT)

National Electronic Fund Transfer (NEFT) system is a nation-wide system that facilitates individuals, firms and corporate to electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country.

The Reserve Bank of India (RBI) maintains this payment network. NEFT system is a funds transfer mechanism where transfer of money takes place from one bank to another on a deferred net settlement basis.For being part of the NEFT funds transfer network, a bank branch has to be NEFT-enabled. Indian Financial System Code (IFSC) is required to perform a transaction using NEFT. IFSC code identifies a specific branch of a bank.

5. Mobile banking

Mobile banking is using mobile phone to access bank account; receive debit/credit alerts and statements via SMS; check balances and recent transactions by browsing a simple mobile enabled website; conduct basic operations via a menu; or transfer funds and pay bills using an application on a smart phone • Mobile can fundamentally change the retail banking experience and strengthen customer-bank relationships.

Benefits of Digital Banking

1. Customer Service:

With internet freely available everywhere, all a customer needs to access his account is a device and internet connectivity. It saves him time and expense as he no longer has to travel to a bank to carry out transactions. He does not have to wait in unending queues only to find that he will have to go to a different counter to get his job done. Online services make it possible for him to sit in the comfort of his home or office, or in fact even in a vehicle while travelling, and carry out transactions without having to wait for anything.

2. 24×7 Availability:

The customer is able to check his bank records anytime he wishes and a number of banking services are available to him round the clock. Transferring money is easier, quicker, and safer.

3. Time Constraint:

A number of services required waiting for considerable periods. Banks had boards put up at their branches specifying the time required for different services. Even simply cashing a cheque took time. But with digital banking it is instant, with no time constraints.

4. Online Bill Payments:

This is a feature that saves customers a lot of time and expense. Customers do not have to carry cash and queue up to pay their utility bills or other bills.

5. Lower Overheads:

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.

6. Banking Benefits:

With the increased convenience of anytime, anywhere banking, the number of customers has increased for banks. Human error in calculations and recordkeeping is reduced, if not eliminated. With records of every transaction being maintained electronically, it is possible to generate reports and analyze data at any point, and for different purposes.

Conclusion

With the increasing usage of smart phones, digitalization of banking sector is inevitable to catch up the increasing expectations of the world. There is no doubt that the Banking Sector in India has become more competitive with the advent of digitization and the Digital India Program for ensuring better customer service, thereby attaining the goal of a cash-less economy. From the study it can be concluded that the digital innovations are creating a new picture of banking services all together. The digitization in banking has started shifting the paradigm of cash and paper based banking to cashless and paperless banking. However, there is still a long way to cover by encountering the challenges with possible solutions and encasing the available opportunities. However, Indian banking sector will have to overcome many challenges to make digital banking pervasive. Internet connectivity and associated digital infrastructure is to be ensured for making the digital dream a reality. Then there is the risk of cyber threats which may cause significant disruptions in the banking services apart from risks related to sensitive customer information and internet frauds. It will be interesting to see how these challenges are dealt with by the banking sector.

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Cultural Transformation and Resurrection in Manju Kapur's Immigrant

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DOI-10.5281/zenodo.7042678

Abstract :
Nina, a lecturer, is 30 years old, unmarried, and stays with her mother in Delhi in Manju Kapur's novel Immigrant (2009). She marries Ananda, an N.R.I. doctor, and moves to Canada as a newlywed bride. In this story, the author depicts the life of a married woman living alone in an alien nation where Indian culture and individualism have long been alien concepts. The central focus is on marital pleasure, women's role at home, and their attitude change. The Indian bride in Canada is a phase in the butterfly's life cycle when it starts to lose its colour. There is loneliness and a feel of being uprooted from one's surroundings, with only a husband to converse with. Nina's personality and mental state have completely changed by the end of the novel. She had a fresh outlook on life and began working on a new career and job.
Keywords: Attitude, Career, Focus, Individualism, Loneliness, Marital, Personality, Uprooted.

Introduction

Manju Kapur is a well-known Indian author. She stands out among her generation's writers with five highly praised novels: Difficult Daughters, A Married Woman, Home, The Immigrant, and Custody. Difficult Daughters earned her the coveted Commonwealth Award for debut fiction from the Asian area in 1999. The Immigrant was shortlisted for the DSC Prize, while A Married Woman was shortlisted for the Hutch Crossword Prize for fiction. The primary topic of diaspora and immigrant concerns is addressed in Immigrant. A contemporary writer with contemporary ideas and perspectives. term 'Diaspora' comes from the Greek word 'Diaspora,' which means 'dispersion.' Diaspora is the spread of people, language, or culture that was once concentrated in a single location. Every immigrant who has relocated to different nations throughout the world in search of better fortunes is referred to as diasporic. These migrants keep a strong sense of attachment to their previous home with them wherever they move. Diaspora examines displacement or dislocation, as well as intergenerational conflict and cultural identity. Immigrant spirits are frequently discovered to be split. The focus of the study is on how Manju Kapur's characters in her novel attempt to establish their identity as Indian diasporas in the United States, despite their divided souls. The novel begins in the 1970s with Nina, a thirty-year-old unhappy English instructor who lives in New Delhi with her widowed mother. Nina's mother wants her to marry an NRI and move to a different country. Nina is unsure of herself and in desperate need of a new home. Meanwhile, Ananda Sharma, a Canadian NRI dentist, approaches her with a proposition. Nina quits her profession as a teacher, marries Ananada, and relocates to Canada to escape her mother's and societal constraints. Ananada is a new immigrant who has settled into life in Canada gradually. Since he is on his way to complete the link, he marries Nina. Ananda is also one of these victims, because his stay in his uncle's house when he visits Canada for the first time elucidates his estrangement and anguish to us. He was complimented for his excellence in accomplishing things and for being so excellent when he was a youngster. In Canada, on the other hand, his uncle tells him to be polite, clean the bathroom, and do all of his chores by himself. Even his close relative did not consider him as a privileged individual. Ananda has learned how people and life are in a new area throughout time. He takes life for granted, begins to act and dress like a Canadian, and becomes acquainted with the clothing, cuisine, and people. However, he is a culture-conscious Indian who values his heritage. Though he has the chance to meet Sue, a Canadian woman, she pressures him into having a physical connection, but he resists, and even when his masculinity is called into question, he maintains his values. As a result of this encounter, he decides to find a companion from his nation. He wants a female from his homeland and culture with whom he can identify, and who will not dominate or challenge his manhood in the way that the Canadian lady did. Ananada's nervousness causes him to marry Nina, a charming Indian woman, in need of a firm grasp, a comforting friend to help him survive in an unknown circle. When a bride marries an NRI, she travels to a faraway country with high hopes, but when the aeroplane takes off, many things in her life take a turn she never expected. Nina is no exception to this diasporic phenomenon. It is not a myth that every easterner in the western world is mistreated. Slavery had been abolished for centuries before Abraham Lincoln battled for its abolition. He did not want the southern people to be enslaved, therefore he fought and won the civil war. Of fact, the south is not enslaved, but the eastern spirit is degraded in the west. Although the cause of prejudice may be based on race, colour, or nationality, unfairness and injustice have persisted for millennia. When Nina, the heroine, arrives in Toronto, she finds herself in this scenario. An

investigation takes place at the immigration clearance desk, where she is asked a series of questions regarding her possessions and is viewed suspiciously. She becomes restless and embarrassed, and for the first time, she feels lonely with her silent spouse at her side. She eventually asks Ananda why they don't treat a European or an American the same way, and why this only occurs to her. When diasporic individuals begin their lives in a distant place, they may face tyranny and intolerance. This type of incident causes the immigrant to forget their identity in order to live in their new nation.When compared to Nina, Ananda finds it easier to reach agreements and concessions. As the days pass, Ananda alters his name and requests that everyone refer to him as 'Andy.' Nina is much like the caged bird. As she is exposed to different people, environments, languages, and foods, her dissatisfaction leads to solitude. Nina is taken to Ananda's uncle's place for supper and to make her feel at ease. Ananda never compels her to dress in a western way; he admires her and wishes for her to wear traditionally. Nina is also at ease in a sari and jewellery, and she is confident in her own skin. Sue and Garry admire her attractiveness, but Ananada's uncle, who is of Indian descent, taunts her, making her feel like a "fish out of water" situation. After all of this, the diasporic sensibility is finely tuned throughout the storyline of the novel to produce a harmonious melody. Nina's rage and her battle against the odds come to a satisfying climax. Nina begins to dress in jeans and a t-shirt in order to get to know people and her surroundings. Despite the fact that she is uncomfortable in her western dress, she refuses to abandon the new style and arrive. She misplaced her individuality and most prized culture in order to make friends and survive. Bird at home Nina has a number of issues to deal with in her new surroundings. Even after adjusting her perspective, she is still unable to persuade others and acquire respect. She was known as a speaker prior to her marriage, but things have changed in her new location. She is no longer known as a professor; she is now known as Nina Sharma, rather than by her personality. Sue advises her to get out of her non-working and disrespectful situation by enrolling in a two-year Library Science course. However, Nina's economic independence brings with it a slew of other internal challenges. Apart from the migration concerns, the couple's family life, culture, and marital faithfulness are all put to the test in an unfamiliar environment. Indians are recognised for their high regard for morality and ethics, but their perspective shifts when they travel abroad. People's values degrade when they are introduced to new situations. They fail to recognise that their mindset dictates that they live to please everyone, and as a result, they lose their personality and become a perfect illustration of'survival of the fittest.' Both Nina and Ananda fail to appreciate their marriage. Neither of them misses a chance to be disloyal to the other. Ananda fails to meet Nina's bodily requirements in the early stages of their marriage. His incapacity is concealed by falsehoods. He never does anything to fill the void in his marriage. Instead, he flirts with Mandy and loves her company. Nina had a similar experience when she meets Anton, a New Yorker who never misses a chance to appreciate and gratify Nina. That's the ruse, and it's
working on her. The connection appears platonic at first, but as Nina becomes more interested in the new world and adventures, she forgets about herself and loves cigarette smoking, beer, and all of the bar activities like a Canadian. Nina becomes confined as a result, and she surrenders herself to Anton more as a way of experiencing the difference and establishing her independence. She doesn't show even a smidgeon of regret. When she tries to leave his relationship, she is raped by Anton, and Nina is stunned and does not respond further. Nina's desire for independence and freedom caused her to trust others readily. Nina's abrupt switch to non-vegetarian food and moving with new entities has ruined her life. The ideals and morals of India have been buried in alien soil.

Nina and Ananda never showed up to straighten things out. They continued to live together in a state of ego and misunderstanding, never feeling guilty. They continued their relationships with Anton and Mandy, respectively, despite the fact that neither was aware of the other's lie. Nina's sari was replaced with jeans and a t-shirt, and her hair colour was altered to yellow, and she was no longer in the cultural castle or religious taboo. Her senses are dominated by glitter and the flavour of western existence. She sacrifices her modesty only to be self-sufficient. She has now established herself as an excellent model of a western lady. When Nina learns of her mother's death, she goes through the most difficult period of her life. She visits India, watches the traditions, and recalls days spent with her mother, principles instilled in her, and the relationship she had with the country and its ideals, which moved her to tears. Nina avoided seeing her pals because she was consumed by guilt. Nina's identity was lost in the process of discovering a new way of life. She resolves not to commit the sin again before returning to Canada. In a diasporic topic, Manju Kapur has brilliantly captured the pride of Indian culture. She discovers a blond hair on her pillow shortly after her return from India, and the mystery of Ananda's relationship with Mandy is revealed. Nina takes some time to consider her options in life, and she wants to put a stop to their hide-and-seek game. Nina is bold and wants to get rid of all the filth, so she decides to start again, which Ananada does not like. Nina abandons her marriage and her life in the West. She starts looking for a position at the University of New Brunswick. The author does not say if she will return to Halifax. Nina is a new lady who wants to start over and make amends for her previous errors. The reader must decide if she will be a Canadian, Indian, or global lady. All we know about Nina Kapur is that she undergoes a transformation, and like an eagle, she rediscovers her power and identity, allowing her to soar above all the immigrants who are still oppressed in a foreign place.

Conclusion

The idea of diaspora is threaded throughout Manju Kapur's work. This work vividly depicts the lives of immigrants and their difficulties in assimilating and adapting to their new surroundings. Immigrants confront a slew of issues when they arrive in a new country. They don't figure out a means to battle against all odds and remain unflappable. Instead, they see it as a chance to participate in the new world. They exist to survive, and their ability to do so is determined by their shifting attitudes. Every action they make to appease others around them ends in disaster. They do not fearlessly emerge from the misleading environment when they recognise their error or the identity they have lost in striving the new world.Nina boldly resolves to start a new life after realising her error. Her attitude shift, acceptance of the reality, and search for identity have all made a significant difference in her life. I conclude this article by stating that the notion of diaspora will persist until every immigrant's mentality changes.

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Relationship among Vocational Courses in Higher Education and Skill Development in India

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Abstract

In present scenario all service sectors demand a skilled individual .The time had gone when only our degree or qualification were the deciding factors for getting the job. Now there is the need of the individuals who are not just qualified but also who are skilled to handle the things in practical situations. Because the present scenario has been totally transformed with the technological innovations. And the vocational courses are the key component to produce skill and competent individuals. The skill development of any country relies on the quality of vocational courses that they offer because vocational courses and skill development are interrelated with each other. In India literacy rate is improving day by day but if we look at the percentage of skilled individuals, it is still very low. There are large numbers of people who are educated but not skilled and trained. There are various factors that are creating the gap between training and actual work life context. The lack of skills among individuals is the main reason of problems like unemployment and less economic growth in India. In India there is a lack of supply and demand of skilled individuals because our global world calls for a large numbers of competent individuals but our country is unable to fulfill this demand. This is the need of the hour to rethink the skill development in India. There should be recreation facilities for the students so that students can nurture their skills and from the very beginning there should be provision of vocational training and the vocational trainings must reflect the need of real life context. The skill development is also the Key focus of NEP 2020 as it also aims at developing the practical skills of individual's. So the present paper will explore the relationship between vocational courses and the skill development in India. Further it also emphasizes on the challenges coming in the way of skill development.

Keywords: Competent, Development, Skills, Training, Vocational Courses.

Introduction

Skills are the basic demanding components of every sector and now a day's skills are very much required for being successful in any field. Only having good qualification is not enough to survive in this dynamic world. Being skilled means having competency, ability and Knowledge (technical, practical, conceptual) and having the spirit of making or adopting new innovations. One can acquire these skills through training or through experience. If we talk about India there is a big gap between training given by institutions and the actual work context. Most of the training institutions in India are not able to meet the requirements of global world because they have not equipped their institutions with the resources required to deal with global knowledge and skills. There are also many challenges before these institutions that prevent them to compete with this ever changing world.

In India still most of the people confuse qualification with skills. They are striving for getting the highest qualification, so that they can get a good job. They don't recognize that qualification without having practical skills is useless. While striving for qualification, they forget to nurture their strengths and skills that they are having. This is the reason why India is facing so many problems like unemployment, low economic rate, poverty etc. Every work field is adopting technological innovations at a very fast pace , so it requires skilled and competent individual to deal with the coming innovations but due to lack of skills, even the most qualified youth is unemployed and thus leading to the lower economic rate of the country. As per studies, it has been found that the large number of youth is present in India and we all know that youth has the power to strengthen our nation but due to improper channelization of their energy, lack of skills and lack of direction, the youth of our country is unable to give the desired outputs. And the skill development totally depends upon the vocational courses that various educational institutions offer to their students. But in India generally vocational education is being given students at higher classes but it should be provided from the most initial stages of the school. The NEP 2020 have also addressed this issue and have recommend that vocational education should be given to the students from the 6th standard itself. So that from the early years of child he/she began to develop his skills that he need to perform his/her job and to earn his /her livelihood. In India there are only few areas which focus on Vocational education like ITI colleges, other engineering colleges etc. In Other areas, there is less emphasis on technical and vocational education .we should understand that other areas also need technical and practical skills. Like if we talk about teachers there are so many professional courses for them but most of the teachers still don't have adequate skills to deal with 21st century world. Thus we can say that there are so many gaps between skill development and vocational courses in India.

Objectives

1. To explore the relationship between vocational education and skill development in India.
2. To identify the challenges coming in the way of skill development in India.
3. To analyze the NEP 2020 in relation to the skill development in India.
4. To find out the appropriate measures for strengthening and reshaping the skill development in India.

Methodology

1. The study is based on the Secondary Sources.
2. The data were collected from the Journals, Websites and Various Research Papers.

Discussion:

India Needs To Reshape The Skill Development

1. To strengthen the economy of the country.
2. To deal with the global world.
3. To enhance the productivity in every area of work.
4. To create congruence between the demand and supply of skilled individuals.
5. To deal with the problem of unemployment in India.
6. To bring the feeling of satisfaction among employees.

Vocational Courses In India

1. Electronics
2. Engineering
3. Computer Training
4. Certificate Courses
5. Data Handling Courses.
6. Medical Related Courses and Many More.

But vocational courses in India needs to be strengthen more by maintaining balance between what is being taught in those courses and what actually is required in the field. And only those certificate courses should be considered valid that are completed from the recognized universities so that the mismatch between the certificates and the actual knowledge can be diminished.

Nep 2020 And Skill Development

The NEP 2020 is a great initiative to strengthen the skill development in India as it aims to develop the 21st century skills, scientific temperament, problem solving skills and critical thinking among individuals. NEP 2020 focuses on experiential learning, so that students can get proficient skills while engaging themselves in experiential learning .It doesn't support traditional rote learning methods but it support the methods which help them in practical life situations. NEP 2020 has also emphasized to develop digital literacy among individuals so that individuals can get required skills to deal with technological innovations. So NEP 2020 is a great initiative for reshaping the skill development in India. It has addressed adequately the needs of reshaping skill development. Proper implementation of the NEP 2020 will surely strengthen the skill development in India.

Challenges Coming In The Way Of Skill Development

1. **Less Investment in Raising Human Capital:** Human resources are the precious capital for the country. They are the biggest asset of our country. But as comparison to other countries, our country invests very less amount in education sector and technical education field. So our country needs to invest more in Educational field.
2. **Inadequate Infrastructure:** There is a lack of infrastructure in our country which needs for accessing the skill education. Most of the institutions doesn't have proper infrastructure that can helps the individuals in developing their skills.
3. **Women Skill Development In Rural Areas:** There is no doubt that women in India are very progressive and they are successfully dealing with the world But in some rural areas they don't get access to technical or skill education even if they are interested . Somewhere thinking of the society and somewhere lack of access to resources becomes a barrier for women skill development. It also needs to address properly.
4. **Label of Government Job:** In India there is a thinking that label of government job is very much important. People give less emphasis to start their own work in which they are interested and skilled. It is found in very studies that people of China are very skilled and they don't only rely on government jobs instead they do their own work. It is the result that many countries use their products and other so many things. So our youth also needs to understand that starting their own work in which they are skilled is fine. It's not compulsory to have the label of government job.
5. **Qualification and Skill Education:** In India most of the people still don't understand the difference between qualification and skill education. These types of people need to be addressed properly.
6. **Practical Training:** India's vocational or professional courses still don't provide practical work experience to the individuals .So India need to put more emphasis on practical training.
7. **Poverty:** Poverty is also a challenge for the individuals that prevent them to have proper skill education.

Recommendations

- Most of the students don't know about the various initiatives and schemes that are made for developing the skills of Individuals . They should be provided with the adequate knowledge about various skill enhancement schemes.
- Educational institutions should try to develop the soft skills of the learners because soft skills are very much important now days for being successful in any field.
- Today's parents also expect from their children to get good marks in the examination. They rarely bother that their child is developing his/her skills are not. So parents should also put emphasis to develop the skill of the children rather only focusing on marks.
- The teachers should be posted according to sanctioned posts.
- There is an urgent need to introduce more vocational courses in rural areas.
- Most of the training institutions select the trainers who are having highest qualification. They should recruit the trainers who are having skills rather than only qualification.
- During vocational education, individuals should be given opportunity to work in real context.
- Appropriate resources should be built in training institutions so that individuals who are engaged in training can get required resources for developing their skills.
- Ongoing professional training should not only be compulsory for teachers but it should be compulsory for every sector.
- Training institutions should develop the training programmes after analyzing the needs of Global World.
- Efforts should be made to develop the skills of distance learners also.
- Proper implementation of proposed schemes related to skill development.

Conclusion

Laconically we can say that Vocational courses are very much related with the skill development, so vocational courses should be properly planned and there should be provision of actual work experience in every vocational course .we all need to rethink for developing the skills among the youth of India. We need to channelize their skills properly for getting desired results and a collaborative effort is required to address the challenges of skill development in India. All the citizens of India need to understand that mere qualification is not enough for being successful but it requires competency and skills for becoming successful in the global world.

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Brain Drain: A Serious Threat for Indian Intellectual Youth, Economy and Nationalism

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DOI- 10.5281/zenodo.7042730

Abstract

After 75 Years of Independence of India is mere in the list of developing countries. The main reason beyond this is the Brain Drain which is a serious threat for Indian Education System, Economy and Nationalism. Developed Countries offered Sponsorship schemes, Scholarship schemes, higher salary packages and hire the most intellectual Youth of India which affects Our Country in all perspectives and also become a great barrier for the development of our Nation. Many legendaries of India like Ramanjuan, Vivekananda, ShriAurobindo, M.K Gandhi, Dr.A.P.J Abdul Kalam inspired by their dedication towards Nationalism time to time by serving their own Nation though Indian can regain their ancient position back in World. Reverse Brain Drain also plays a vital role to migrate it's skilled persons back to their motherland and serve here with full devotion. The main findings of this paper is Developed Countries manipulated the Indian Intellectual, Capable, Skilled Students by Brain Drain due to which Indian Economy suffered a lot. Our strong ancient Indian Education System and the continue efforts of Indian Government succeeded not completely but in rare points which results Reverse Brain Drain.

Keywords: Brain Drain, Economy, Education System, Nationalism

Introduction

India will celebrate 76th years of Independence on 15th August 2022. In last year India celebrated its National festival with an idea to 'Create a Vision' and highlighted the scientific and technological achievements and advancements. No doubt, India has now step towards Smart cities first time in the world history and this scheme was launched by the current Prime Minister Sh. Narendra Modi on 25th June 2015 with the agenda 100 Smart cities in five zones of India i.e. North, East, West, South and Central India. Govt. of India now moderate India with all aspects. It taken its first step from the roots of Indian Society which is Education. For this MHRD set several new universities in every state of India whether these are Central or State universities, they focused on quality Education with well equipped Infrastructure. According to the list Central Universities published on 31st March 2021 there are 54 Central universities existed in India with the current date. According to the Survey on Higher Education in year 2020 there are 1043 universities across India with highly qualified Professors, Infrastructure and Scholarship schemes. Many new IIT's, Medical Institutions, Agricultural Institutions, Art and Craft etc. came under these fully developed Educational Institutions. These all Universities not only provided quality Education and a better placement in eminent Companies and Industries of India as well as abroad also.

As, Indian Government put every possible effort for the Quality Education, Employment, Societies of Indian Citizens but it is still came under developing Countries list in World. So, the question raised here that Is the only Indian Government is responsible for this position of India in World after many years of Independence of India Or something else? Then the answer is No according the literature review. As, there are many reasons for this but the main reason beyond this that the lack of Nationalism in the Indian Citizens due to which they face the corruption problem in every sector of India. Lack of Nationalism creates a brain drain problem in students due to which India suffered a lot not only but many other under developing countries face this issue also. The UN world Migration Report 2022 said that India has 3.2 Million well educated migrant working in developed countries like U.S.A, U.N, Canada, Russia, Australia etc. These countries attract the under developing countries students by their sponsored schemes, Scholarships, part time as well as full time jobs with higher Salary packages. These developed countries indirectly fulfill the demand of their Industries workers with the already well skilled and intellectual minds as their economy is stronger than Indian rupees so, they hire easily the young minds of our Country. But the

Nationalism of India is suffered with this serious threat from the colonial Era to the present date. Only the awareness of Nationalism in Indian youth Intellectual minds can attain reverse brain drain and make their nation strong not only from their inner core but economically also.

Objectives

1. Awaken Feeling of Nationalism in Indian University Students towards Nationalism by National Education.
2. Inspire Students about Nationalism by discussing Great Indian Reformers.
3. To disuses Abolish Brain drain which is serious threat for Nationalism
4. Aware students the main target of developed countries beyond Brain Drain.
5. To discuss Reverse Brain drain for Development of Nationalism in Students.

Discussion

From Ancient India to the till date only Education has that power to deal with the every problem of human life whether it's about strong , peaceful, Intellectual, Unity or a great Nation. Education has the power to eradicate castism, racism, and cultural, linguistic distances of a country's citizen and build a strong Nation. And in the world India set a. Perfect example for all this. India is a land of ancient scriptures, well versed literature, well Intellectual minds and many more. One great example of this that Indian has a strong identity in world from the ancient period though it has the most eminent universities like Taxila, Nalanda, Ujjain in it's womb. These universities had a strong education system which attracted every corner of the world. Chinese scholars like Fahien, XunXang etc. Came there for higher education and resided here for many years and kept with them many written manuscripts based on Indian Education System, Value System, Enrich Culture, Administration System etc. But the many foreign invaders not only destroyed these Educational universities but also plundered the enrich source of Indian cultural sources i.e. Temples. Somnath Temple is one of them which was plundered and destroyed by invaders about Seventeen times. The main reason beyond to the destruction of this the stronger countries frightened from the enrich Education System of India So that they tried to vanish their literature and burnt the Nalanda University. After the destruction of these Ancient Indian Universities our country's Nationalism faced a dark Era because every ruling country Introduce their culture and Education System in India. Even they propagated their Religion by missionaries. When India was the colony of Britain they set up limitations on Indian's Education System and only provided them the Education According to their East India companies demand. But Education awakens the Nationalism in Indians and they fight for their rights, For the Independence of their Country, for the development of their country etc.Nowadays where every Student is busy with their professional life and forgets feeling of Nationalism inside them. This technological Era need to back the roots of Indian Education System. No doubt it's technological Era where every developed country have strong atomic powers, Technogical Systems, Moderate cities with well planned system etc. But the only country which leads them as a peace Guru that is Our Nation India. It's possible because India is the land of the legendaries who create their own formulas in mathematics i.e. Ramanjuan, Arybhatta who gave zero to World, Patanjali who was the founder of Yoga systems, Vivekananda who influenced western countries by their Nationalism etc. Indian Education System must balance the Nationalism and progress of the Students together. Nationalism helps a nation to strengthen it's roots in all aspects whether it's economy, integration, leading Country etc. This land is the mother of many legendaries as we all knows and these legendaries set up an example as served themselves towards their nation time to time. ShriAurobindo, RabindranathTagore, M. k Gandhi awaken the Nationalism though which the Indians attain Independence. It was the only their literature which ignite the spark inside the millions of Indians and they fought with unity. They made education as a weapon against these strong nations darkness and attain the Sunshine of their Country. After Independence many Committees and Educational policies were implemented by Government of India for the betterment of Indians. Because the Indian Government well knows that only the Education can help its citizens to get back our Country's ancient position back. Not only Indian Government but today many businessman and Industrialists also taken initiative for this. Rattan Tata who is an eminent Industrialist and former Chairman of Tata Sons awarded more than 5400 Students till date with the JN Tata Endowment's loan Scholarship since 1892 to higher Studies. So, that the student's can service their own country. Another great personality is DhirubhaiAmbani who is the Number one business person of India provided scholarship to meritorious and especially able students of class 12th. But why the Independent India mere standing in the developing countries list till date. As, the many legendaries set up an example of Nationalism in Indian history. The reason beyond this the many rich citizens start this process in late 60's after the World war 2nd when India suffered with unemployment they migrated to the developed Countries and settled their and never return back to their motherland India.

Brain Drain: The concept is popularized in 1960's as per the sources and this term means

that the migration of a skilled, capable, educated, Intellectual person to a developed Country.

Developed countries like U.S.A, China, and Russia etc. Provided Scholarship, sponsored, high salary packages to the anxious youth Intellectual minds who desires a luxurious life. These Students attracted towards theses countries packages as they have lack of Nationalism. Sometimes they have full feelings for their Nation but the unemployment and less packages effects also become the reason for their migration. So, these countries also give them work permits also give citizenship after their terms and conditions. Due to which the developing countries suffered a lot and it effects it's economy and also a threat for their Nationalism. These Developed Countries have a strong strategy of manipulation of the young minds as they are the old player's of this game from the ancient time, only they change the name of their strategy in ancient times they made colonies to the less developed Countries and force their citizens to serve them by forcefully. Now, they set up the schemes for the Young Students of under developing countries after they offered the big packages and instead of that they hired Intellectual precious minds of our country which serve them and represent their countries in World. When they assured with their dedication and hard work they give them citizenship and instead of that they permanently make colonies in their intellect. Many Nationalists believed that this happens because the lack of Nationalism. If a person balanced their Education System with the value and Nationalism Education System. He can develop a sense of Nationalism and stop their unwanted desires which force him to revolt against hsi nation. For example Dr. A.P.J Abdul kalam was a perfect example for this who invented the first Missile Of India and become Missile Man of India if he influenced with the Developed Countries Packages then Indian may not have their own missile and attained fame in the World. He not only invented missile but also motivate the Indian students time to time for their National development. He was very much interested to discuss the Country development goals with the young Intellectual minds of India and it's effect we seen today many Students inspired from him and have a strong National feeling with a great ambition in their life. Swami Vivekananda is also a role model of many Indian students who influenced whole European countries by their Nationalism and not left his Country behind the luxurious life Of European countries. He can choose that life but he choose his motherland and server for India only. He was well known for his pious, sacred, Spiritual and precious knowledge which he attain from the authentic literature of India and from his belief System. He knows European Countries may have the immense power in all sectors but that are weak in one section that is Peace. They may have the advanced technologies but their technologies only can create blunders in world not satisfy their spirits with that. This is their strong belief system that's the result that India is leading whole world as Yogic and Peace Guru. Only Indian Education and belief system has the power that they regain their lost identity once again in the world by their Belief System. Government of India also take initiative to abolish brain drain by setting up new Educational Institutions and Universities and also provide Scholarships Schemes, placements and conducted many programmes for Specially professional Students though they can awaken Nationalism in them . As, India has facing Economical issues till date that Government of India aware the Students of India about their current position in Economic sector by setting conferences directly with the IITs, AIIMS, Agricultural and other Institutions Students that they can influence them to serve in their own country after their Education and develop their Country strong in all perspectives. Reverse Brain Drain is another term for the awaken Nationalism in the Students as well as the Abroad Settled Indian Skilled persons. Reverse Brain Drain is the effort of those countries towards their Nation which influenced their Migrated in their Countries back and provided them sufficient package and request them to serve in their own Countries for the development of their own Nation and represent trey own Country in World with their Spirit of Nationalism.

Suggestions

1. Conduct Debates, discussions, Conferences on Nationalism in Professional as well as academic Universities of India for creating a Feeling of Nationalism.
2. Indian Government set up a limit on abroad Work permit for highly skilled Intellectual Students of India.
3. Aware the students about the brain drain strategy of Developed Countries.
4. Indian Government includes only their own Companies and Industries for the placements of professional Institutions of India.
5. Indian Government takes initiative steps for the reverse brain drain.
6. Indian Private Sectors also take initiative to provide a job security assurance to the well educated and skilled student's of India.

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Impact of Self-efficacy On Academic Achievement of Senior Secondary School Students

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DOI-10.5281/zenodo.7042754

ABSTRACT: The present study is an attempt to study the impact of self-efficacy on academic achievement of senior secondary school students. A sample of 400 (200 male and 200 female) senior secondary school students from four districts of the state of Haryana was taken on the basis of multi-stage random sampling. Self-Efficacy Scale by Mathur and Bhatnagar (2012) and academic achievement scores from 10th class results were used to collect the data. Mean, Standard Deviation, and 't' test were used to analyse the data. It was observed from the present study that female students had more academic achievement than their male counterpart. It was found that academic achievement of senior secondary school students with high self-efficacy shows that had more academic achievement than those senior secondary school students with low self-efficacy The present study will be very helpful to the educational planners, policy makers, administrators, teacher-educators and parents in particular and society in general in bringing about improvement in various skills of the teachers by strengthening their Self-Efficacy to boost academic achievement among students.
Key words: Academic achievement, self-efficacy, male, female senior secondary school students

Introduction

The importance of academic achievement has raised several important questions for educational researchers: What factors promote achievement in students? How far the different factors contribute towards academic achievement? Many factors have been hypothesized and researched upon. Researchers have come out with varied results, at times complementing each other, but at times contradicting each other. A complete and comprehensive picture of academic achievement still seems to elude the researchers. The search therefore continues. Educational researchers all over the world are still seeking a breakthrough in clarifying the phenomenon. It is especially so in countries like India, where the population growth has over shot the process of tapping in the natural resources and has out-stripped the expansion of facilities, consequently, heightening the competition for admission and promotion of the students to the next class. As a natural consequence, the intensity of increasing educational needs have not met with the needed facilities. This lag between educational requirement and the means to accomplish them has resulted in sharp decline in academic standards. The problems of deteriorating standards have forced the educationist to thoroughly probe the factors that affect the pupils' academic achievement in schools at all levels and on that basis to suggest measures for improvement to the educational authorities. It is this particular aspect of these studies that compelled the present investigators to study some of the psycho- social variables namely personality, intelligence and socio-economic background in relation to academic achievement of high, average and low achievers so that the causes of poor academic performance may be treated out and be controlled suitably. Academic achievement plays an important role in the life of an individual because it gives may towards his goal. It is according to his academic achievement that he chooses his vocation, his career and his profession. In educational life academic achievement is highly valued. In the modern age, success in competition has become very important and essential to get a place in a higher institution. It has also been noticed that those who have better academic achievement; they are placed high in the Society. But it does mean that all the high academic achievers are highly positioned. The educational institutions occupy a very important and vital place in the educational environment of the people. The process of educational instruction in the educational institution is measured by the various periodical tests like weekly test, Monthly test, half yearly test and annual test. Whether the Student has achieved the knowledge imparted to him is being justified by the result he achieved from the tests. The results of achievement tests that measure relative accomplishment in a specific area of work can be termed as academic achievement

Objectives

1. To compare the academic achievement of male andfemale senior secondary school students.
2. To compare the academic achievement of senior secondary school students having high and low levels of self-efficacy.

Hypotheses

1, There exists no significant difference in academic achievement of male and female senior secondary school students.

2. There exists no significant difference in academic achievement of senior secondary school students having high and low levels of self-efficacy.

Self-Efficacy

Self-efficacy is defined as a person's belief about one's ability to organize and execute the course of action necessary to achieve a goal. In other words, persons with strong efficacy beliefs are more confident in their capacity to execute a behavior pattern. Beliefs about Self-efficacy have a significant impact on our goals and emotional reactions. Higher Self-efficacy is also associated with more persistence, a trait that allows one to gain corrective experiences that reinforce our sense of Self-efficacy. Self-efficacy refers to the confidence people have in their abilities that they will be successful at a given task. Individuals who possess a high degree of Self-efficacy are more likely to attempt challenging tasks, to persist longer at them, and to put more effort in the process. If highly efficacious individuals fail, they attribute the outcome to lack of effort or an adverse environment. When they succeed, they credit their achievement to their abilities. Self-efficacy is the people's belief about their capabilities to produce a designated level of performance that exercises influence over events that affect their lives. In functional terms Bandura (1986) suggested that efficacy expectations may predict whether or not one's action will be initiated, the amount of effort expended in pursuit of that activity, and the level of persistence in the 'face of obstacles'. Thus, Self-efficacy ultimately determines how an individual behaves, thinks and becomes motivated to be involved with particular roles. It also reflects students' judgment of capability to accomplish specific tasks. Self-efficacy is related to how much effort individuals will exert and how long they will persist in the face of obstacles. People with a weak sense of Self-Efficacy are more likely to reduce or abandon their efforts in the fact of difficulty or initial failure, whereas those with a strong sense of Self-Efficacy are more likely to extend greater effort and persist longer in that effort when faced with difficulty or initial failure. People will be more inclined to take on a task if they believe that they can succeed. People generally avoid tasks where their Self-efficacy is low, but will engage in tasks where their Self-efficacy is high. People with high Self-efficacy in a task are more likely to make more of an effort and persist longer than those with low Self-efficacy. Bandura showed that people of differing Self-efficacy are generally of the opinion that they are in control of their own life; that their own actions and decisions shape their lives. On the other hand, people with low Self-efficacy may see their lives as somewhat out of their hands. Self-efficacy influences how individuals think and react emotionally to others and their environment. A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities. They set themselves to challenging goals and maintain strong commitment to them. They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression.

Review of Literature

Shkullaku (2013) conducted a study on gender difference in self-efficacy and academic performance among 180 Albanian students from two different universities. Results revealed a significant difference between male and female self-efficacy. **Singh & Katlana (2015)** explored the level of self-efficacy of male and female teachers of colleges and the analysis of the result pointed that there was significant difference in the self-efficacy of male and female teachers of university. **Wang et al. (2015)** demonstrate that twice exceptional students could possess high-academic self-concept and academic self-efficacy that empower their academic success. **Ahuja (2016)** found that girls had statistically significant higher scores in self-efficacy, educational aspiration and academic achievement than boys. A statistically significant positive correlation was found between self-efficacy & educational aspiration, self-efficacy & academic achievement and educational aspiration & academic achievement of secondary school students. **Bhagat and Baliya (2016)** also found an insignificant difference was found in the self-efficacy of secondary school students in relation to their gender and academic achievement. **Marsudi (2017)** showed that self-efficacy and academic achievement had positive and significant influence on performance, while perceived organizational support strengthened the influence on performance of the lecturers of "A" accredited private universities. **Hasan and Parvez (2019)** resulted in a significant positive correlation between self-efficacy and academic achievement. Moreover, self-efficacy reported no significant differential effect on academic achievement. Gender was reported to have a significant differential effect on self-efficacy. However, gender and locale were also found to have significant differential effects on the academic achievement of secondary school students. **Odame-Mensaw (2019)** revealed that respondents had positive self-efficacy. Further, analysis showed that self-efficacy significantly predicted academic achievement, while girls were found to have more academic achievement than boys. . **AlAjmi and AlAzemi (2021)** indicated a statistically significant positive correlation between academic self-efficacy and academic achievement of the study sample. Also, there were apparent differences between arithmetic means in academic self-efficacy in all variables where they were statistically significant only according to the academic average.

Justification of the Study

A person's self-efficacy is a person's opinion that he or she is capable of effectively completing a particular task, and it has a significant impact on people's behavior (Bandura, 1977). As a result, students' academic achievement is greatly influenced by their self-efficacy. In addition to self-efficacy, students' academic success is best predicted by their level of academic achievement. It was found in the literature of many existing researchers that self-efficacy had an instrumental role in determining the level of a student's academic achievement. Hence, an attempt has been made to study the impact of self-efficacy on academic achievement of senior school students. .

Statement of the Problem

Impact of Self-Efficacy on Academic Achievement of Senior Secondary School Students.

Methodology

Descriptive research is concerned with hypothesis formulation and testing and the analysis or relationship between non-manipulated variables and the development of generalizations. In this study, a Descriptive research method has been used.

Population and Sample of the Study

The study aims at describing the academic achievement of senior secondary school students in relation to their self-efficacy. It, therefore, requires that data to be collected from the concerned categories of senior secondary school students, who form the population of the study, On the basis of multi-stage random sampling. In the present study, 800 (400 male and 300 female) senior secondary students from four districts of the state of Haryana will form the sample.

Tools Used

1. Self-Efficacy Test by Vikas Sharma (2018)
2. Academic Achievement Test scores have been taken from the academic performance of students in previous examinations.

STATISTICAL TECHNIQUE USED

The Mean, Standard Deviation, 't' test and Karl Pearson's Product Moment Coefficient Correlation were used to analyze the data.

Data Analysis

The principal objective of the present paper is to see the impact of self-efficacy on academic achievement among senior secondary school students of Haryana. The difference in academic achievement in relation to gender and level of self-efficacy achievement are shown in Table 1 to Table 2

Table: 1, Mean score, standard deviation and 't' value of academic achievement of male and female senior secondary students

Gender	N	Mean	SD	t-value
Male students	400	73.46	11.44	6.705**
Female students	400	79.11	12.41	

Table 1 indicates that the mean scores of academic achievement among male and female senior secondary school students. It indicates that the mean scores of male and female students on academic achievement are 73.46 and 79.11 respectively. The 't' value comes out to be (6.705) which is significant at 0.01Level concluding that male and female students differ significantly on academic achievement. As a result, the null hypothesis, "There is no significant difference in academic achievements of male and female the senior secondary school students" is not retained. The higher mean score of female students shows that they had more academic achievement than their counterpart male students.

Table 2, Mean score, standard deviation and‘t’ value of academic achievement of senior secondary school students having low and high self-efficacy

Types of Home environment	N	Mean	SD	t-value
Low self-efficacy	208	64.67	10.525	20.037**
High self-efficacy	437	83.66	8.182	

*Significant at 0.01 level

Table 2 indicates that the mean scores of academic achievement among senior secondary school students in relation to their self-efficacy. It indicates that the mean scores academic achievement of senior secondary school students having low and high self-efficacy are 64.67 and 83.66 respectively. The ‘t’ value comes out to be (20.037) which is significant at 0.01Level concluding that senior secondary school students with low and high self-efficacy differ significantly on academic achievement. As a result, the null hypothesis, “There is no significant difference in academic achievement of senior secondary school students having high and low self-efficacy” is not retained. The higher mean score of students having high self-efficacy shows that they had more academic achievement that those students with low self-efficacy.

Findings of the Study

1. There exists a significant difference in the level of academic achievement of male and female senior secondary school students. The higher mean score of female students showed that they had more academic achievement than their male counterpart.
2. There exists a significant difference in the level of academic achievement of senior secondary school students having high and low levels of self-efficacy. The higher mean score of academic achievement of senior secondary school students with high self-efficacy shows that they are more achievement motivated than those senior secondary school students with low self-efficacy.

Discussion of Results

The present paper highlighted girl’s superiority over boy students in relation to academic achievement. The present finding is supported by **Ahuja (2016)** and **Odame-Mensaw (2019)** revealed that girls were found to have more academic achievement than boys. In the present study, it was found that academic achievement of senior secondary school students with high self-efficacy shows that they are more achievement motivated than those senior secondary school students with low self-efficacy. The finding of the present research is supported by Bandura and Cervone (1986), **Marsudi (2017)** and **AlAjmi and AlAzemi (2021)** who stated that a low sense of self-efficacy should be associated with negative achievement behaviors (e.g., low effort and persistence). The present study will be very helpful to the educational planners, policy makers, administrators, teacher-educators and parents in particular and society in general in bringing about improvement in various skills of the teachers by strengthening their Self-Efficacy to boost academic performance among students.

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Redefining the Teaching-Learning Process by Employing Blended Learning Designs in Education: An Emerging Trend in Pedagogy

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DOI-10.5281/zenodo.7042985

Abstract The cognitive abilities of every individual are different. Every Individual learns differently and therefore needs differentiated instruction. Alone the traditional teaching can't appeal to the senses of modern learners. They require the components of traditional as well as modern teaching. Blended learning can fulfill the demand of modern learners as it involves the components of traditional as well as modern teaching. Blended learning designs use the technology in the teaching-learning process but also acknowledge the traditional learning methods. The NEP 2020 also accentuated that in the age of digital and online learning, we should not ignore the face to face learning, therefore the adoption of Blended learning design is recommended by the Policy. The aim of Collaborative and co-operative learning can be accomplished with the help of this design. It gives space to the learners for the interaction with teachers as well as peers. The active Participation of the learners can be increased with the help of blended learning designs which otherwise is challenging in traditional classrooms. The complex concepts can be made easy through blended learning designs. These designs of learning leave the long lasting effect on the learners. There are various models of Blended learning which can be used according to the different learning contexts. The new collaborative blended learning models have also emerged in the field of education. This paper aimed to explore the importance of Blended learning designs in the teaching-learning process. Further, this paper will also highlight the contribution of Blended learning designs in promoting cooperative and active learning. The study will also reveal that how cooperative blended learning strategies will promote critical thinking and insightful learning.

Keywords: Blended Learning, Cooperative Learning, Differentiated Instruction

Introduction

In the present era of educational technology blended learning is an important contribution in the field of teaching and learning. Blended mode of learning is the opportunity for the learners to learn from both online materials and in the traditional setup of face-to-face learning. To make a learning environment positive teachers should have the required ability to encourage students to more contribute to their learning actions (Donnelly, 2010) and they must find a technique that helps them to interact socially in a cooperative manner (Liu, 2010; Delialioğlu, 2012). In blended learning, teachers can spend much of their time interacting with the students rather than lecturing during face-to-face class time. Teachers can use online delivery of content with the use of technology to reinforce the learning in students. NEP 2020 also suggested various models of blended learning in the teaching-learning process. It suggested the combination of traditional learning with the informative and intelligent use of technology. Today, in the time of pandemic blended learning plays an important role in disseminating knowledge among learners. Teachers can use the blended model of teaching-learning with the use of cooperative learning strategies to make learning interesting and productive. In the present era of information and communication technology in which learning is dominated by digital devices for making the learning effective, blended learning becomes a new substitute for making the learning more beneficial for learners. Incorporation of cooperative learning into blended learning will make a new way of blended learning (Yen and Lee, 2011; Liu, 2010).

Why Blended Learning?

Blended learning is required in the present scenario in many ways. In the 21st century, life is so fast and every one of us wants to learn according to its ease and requirement, anywhere anytime. So blended learning is very useful in this way. The following points will highlight the need of Blended learning: -

1. Blended learning helps in boosting learners' efficiency. Learners can get learning material wherever and whenever required according to their ease, which motivates them to work efficiently.
2. Blended learning helps in engaging the learners in learning. By engaging the learners in learning, teachers can assess easily and make the learning very enjoyable to learners.
3. Through blended learning teachers can communicate easily with the learners by using technology and also in a traditional setting.

4. It helps the learners to learn collaboratively, discuss with one another, solve their doubts and give feedback for improvement in learning.

5. Blended learning helps in fulfilling the needs of every individual learner, by providing various audio-visual aids, ppts, images, etc.

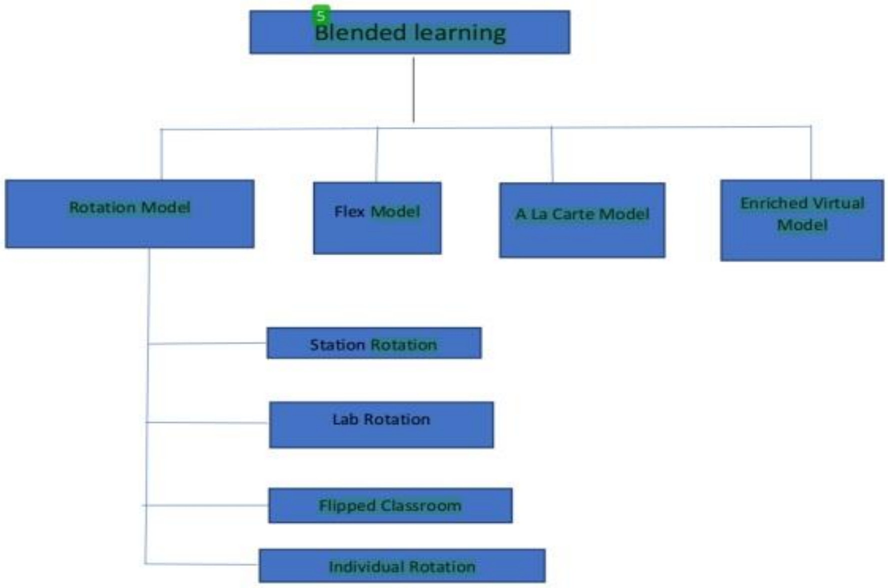
6. It also helps in tracking the learner's progress through various online and offline assessment strategies.

Models Of Blended Learning:

According to Christensen, Horn, & Staker, (2013), in a blended learning program one out of the following four models are used: -

1. Rotation Model:
A. The Station Rotation Model
B. Lab Rotation Model
C. Flipped Classroom
D. Individual Rotation
2. Flex Model
3. A La Carte Model
4. Enriched Virtual Model

Each model has its own importance and applicability according to the need and demand of the learning setup.



Rotation Model: In this model of blended learning, in teachinga particular subject students are rotated on a fixed schedule.

A. **The Station Rotation Model**: **-** In a station rotation model, within a given course or subject, students are divided into different groups. The teacher fixed some learning stations i.e., online learning, individual tutoring, project work, assignment, etc. students rotate at fixed points in time between these different learning stations. In the Station Rotation model, students rotate through all of the stations.

B. **Lab Rotation Model: -** In a lab Rotation model, students rotate at fixed points in time between a classroom and computer lab. Students learn online in the computer lab, whereas they are involved in various types of activities in the classroom**.**

C. **Flipped Classroom**: **-** In this model of blended learning, the instructional or teachable content is given beforehand to students and still available in class.

D. **Individual Rotation: -** In this model of blended learning while learning the content, every student has an individualized playlist and does not necessarily rotate to each available station.

1. **Flex Model: -** In the Flex model, online learning is at the center of students' learning. Students have a flexible schedule for their learning based on their needs and fixed goals. Students get online learning experiences as well as offline face-to-face learning experiences. Face-to-face learning experiences are given through discussion, projects, mentoring, tutoring, etc.; most of the learning takes place online.

2. **A La Carte Model: -** this model of blended learning allows the learner to take an online course with an online teacher in addition to their face-to-face learning which provides more flexibility in learning for students.

3. **Enriched Virtual Model: -** In the enriched virtual model of blended learning the student does not need to attend full-time classes in school. Students can complete the majority of their work online and they have to come to school for only face-to-face requirements of the course. In this model of learning daily attendance in schools is not required. Learners have to come only twice a week for face-to-face work learning.

Components Of Blended Learning:

1. Face-to-face teaching
2. Virtual classroom
3. Online learning
4. Mobile learning
5. Self-paced e-learning
6. Social learning/ informal learning

Blended Learning With Various Cooperative Learning Strategies:

There are various cooperative learning strategies that can helps in boosting the learning in blended mode and make learning beneficial for learners:

1. Brainstorming
2. Crossover
3. Fishbowl
4. Think –Pair-Share CLS
5. Jigsaw CLS

There are many cooperative learning strategies available. Some cooperative learning strategies help in student pairing, while others help in small groups of four or five students.

Significance Of The Study

In this era of the 21st century, the traditional face-to-face teaching alone may not be proved most effective. It will be important to ponder upon how students learn best, and how we can improve their learning through cooperative and interactive strategies of learning because we want to educate the future generations. Blended learning takes an initiative in enhancing the traditional classroom setting and providing opportunities to participate in cooperative learning activities based on team-based projects and games in the classroom at various levels. With this paper, the author wants to merge blended learning with various cooperative learning strategies in order to broaden the horizons of the teaching-learning process in the future and to make learning more beneficial and interactive.

Objectives

1. Relevance of Blended Learning in the present scenario
2. Use of blended learning with various cooperative learning strategies

Research Methodology

We have used the content analysis technique to analyze the content and information regarding the Pedagogy, Blended Learning. For this we have gone through various journals, books and related articles & many more.

Implications Of The Paper:

The following will be the implications of this paper: -

1. Blended learning will Offer students the flexibility of time and with this learning outcomes will be improved
2. Blended learning will help in more student-teacher interaction
3. With blended learning students as well as teachers will attain more technological knowledge and this will increase their confidence in using new technologies
4. By using blended learning with cooperative learning strategies, there will be an increase in student engagement in the learning process
5. This study will benefit students, curriculum planners, teachers, and teacher's educators because switching from a traditional competition classroom to a cooperative learning method in a blended mode will be most beneficial in making learning more interactive and enjoyable.

Benefits Of Using Blended Learning In Teaching Learning Situations

1. In blended learning there will be maximum use of the technologies and other resources which will make individuals more techno-friendly
2. Through a blended mode of learning issues regarding distance are eliminated
3. Blended learning enables communication with all students.
4. Continuous feedback from the teacher as well as students will result in effective learning
5. Online resources are updated and upgraded from time to time. Thus, students have access to unlimited up-to-date resources
6. Blended learning helps to develop time management skills and critical thinking skill among students as well as teachers

Challenges To Be Faced While Using Blended Mode Of Learning

1. Blended mode of teaching and learning is very time-consuming:
2. Blended mode of teaching-learning needs extra efforts from teachers.
3. In blended learning students sometimes feel that they are given more work to do when distance modes are used.
4. Blended learning is dependent on technical resources and online information. These tools need to be reliable, easy to use, and updated in order to give a meaningful learning experience.
5. Blended learning needs a stable and adequate internet connection. The school or the institution should have adequate infrastructure and all facilities required for computer-based instruction.

Conclusion

Blended Learning is an important part of the future of the education system. It will provide students the flexibility of learning which will enhance the learning outcomes. Blended learning opens ways for many learners who were not able to get an education because of various physical barriers. With the knowledge of using technology in the classroom, both teachers and students will develop skills important for the 21st century. A blended mode of learning will enhance the critical thinking among the learners which will help them in the future. Thus, by using the blended mode of learning with the use of cooperative learning strategies will enhance the productivity in the learning environment.

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A Geographical Analysis of Socio-economic Level of Sample Village - Newari of Masturi Block Bilaspur Plain - Chhattisgarh State

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DOI-10.5281/zenodo.7043009

Abstract: Development literally means a new situation that emerges. Development achieved through planned efforts is termed as planned development. If the growth is natural it is known as natural development. Development however is a two dimensional phenomenon, depicting a positive aspect in a given context on the one hand and negative aspect on the other. When it proceeds towards positive direction it becomes development, so it is obvious that gaining a better level of living is the normative phenomenon of desirable change. The present paper is based on primary and secondary data to find out the socio-economic level and assess the living standard of rural population of in this area.
Key words: **-** Development, dimensional, phenomenon, normative.

Introduction:-

The Bilaspur district is situated in the north western part of Chhattisgarh state. Physically it's called Bilaspur plain', a part of Chhattisgarh Basin. It extends from 21.47° N to 23.8° north latitude and 81.14° E to 83.15° E longitude, covering an area of 6375 sq Kms. Masturi block is situated in south eastern part of bilaspur district and physically it comes under bilaspur plain area. Masturi block occupies a total of 737 sq km geographical area. This block is bounded by three rivers Arpa, Lilagar and Seonoth flows the western and southern Port boundaries. There are 171 villages and 105 Gram Panchayat. Newari village is selected at random sampling for our research studies.

Study Area:-

Newari sample village is situated in the southern part of Masturi block in Bilaspur district. It comes under Patwari Halka number 43. It extends from 21^{0}52'30" N to 21°54'00" North latitude and 82^{0}16'25" E to 82^{0}18'10" East longitude. The total geographical area of the village Newari is 308.30 hectare. In Newari village there are 130 household according to census 2001 and total population is 517 persons. The 102 house and field surveyed during field year 2009. The present studies make focus on the physical, social, cultural and economic activities assessment for the socio-economic development of this area.

Objectives:-

In the study area, the following objectives have been stated :-

1) To examine the geographical account of the human resources of the study area and finding out where, how and in what way we can bring phenomenal changes in this surveyed village.
2) To analyse the socio-economic condition of the village and assess the infrastructure facilities for the development of study area.

Hypothesis:-

Most of the rural population is involved in non-agricultural works.

Data – Base and Methodology:-

The present study is primarily based on the field survey, conducted in which scheduled, Question and interview by door to door survey secondary data have been collected from various publish government records and census reports. The district census hand book also has been consulted for data analysis. General statistics and methods are used for conclude phenomena of village Newari.

Result and discussion :-

Before the analyzing the block and village Newari, the pattern of socio-economic development in the study area. We have discussed population structure, age sex ratio, age group composition, economic activity and cultural element. It consist demographic characteristics, which is the one of main components of social development. It is highly determine by level of development of any particular area. According to 2011 census the total population of Masturi block is 199377 person population density is 269 person per 5 Kgm. Decided growth of population of Masturi block in 2001 year is 2.1% The land is mostly appropriate for agriculture. This area occupied night density population. The sex ratio of Masturi block is 989 and the literary rate is 50.2%. In 2011 census The total population of Masturi block is 217425 In sample village Newari also studies details for research work as a case study. of geographical point of view. The village comes also under phi ally plain area. The total population of village Newari is in 2011 census is 582 persons. The village Newari comes under the Patwari Hlaka No. 43 of Masturi block in Bilaspur district. It extended 21^{0}52'30" N to 21^{0}54'N latitude and 82^{0}16' E to 82^{0}18' East longitude. The total geographical area of this viallge is 308.30 hector and number of house hold are 130.

Table No. 01, Village Newari – Population Census 1981 to 2011

1981			1991			2001			2011		
M	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**
290	278	568	282	275	557	310	207	517	302	280	582

Table No. 02, Village Newari – Cost Wise Population Structure – Census 1981-2011

Year	General			Scheduled Cost			Scheduled Tribe		
	T	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**
1981	341	180	161	76	34	42	151	76	75
1991	308	152	156	100	53	47	149	77	72
2001	488	250	238	63	35	28	166	133	33
2011	582	310	272	79	39	40	179	140	39

Sources: Census of India Bilaspur District (C.G.)

During field survey (In 2014) about 93 families are survey through door to door and found Total population 6 28 person which is 329 male and 299 is female population and caste wise population found total 309 general categories and total 156 are S.T. Population and total 87 are SC population and total 76 are OBC population. From a sample surrey we get trust the scheduled cast population is very low to Newari. Have is ST population with more than other categories. The sex ratio of sample Neweri vilige is 908 females per thousand males.

Table No. 03, Village Newari : Distribution of Population Age Group Wise

Age Group	Male	Female
0-5	49	20
5-10	34	29
10-15	38	33
15-20	25	23
20-25	29	40
25-30	32	35
30-35	28	32
35-40	27	20
40-45	12	16
45-50	14	14
50-55	13	10
55-60	20	18
above- 60	18	13

Sources : Surveyed Dated

From above table the high person format age group 15 to 40 in rule male and female both law age persons in above age group 60.

Literacy :-

The literacy rate tabulated both date primary and secondary. According to census village Newari in 1981 the total literacy is 164 person which is male 115 and female 49 and in 1991 census year total literacy 295 which is male 200 and female 95, similarly in 2001 census total literacy 283 which is male 157 and female 126. According to 2011 census the total literacy 352 which is male 210 and female 142. From the sample so my we get 628 person total population which is (329 male and 299 female) the literacy is 337 person total which is 198 is male literacy and 139 is female.

Table No. 04, Village Newari – Literacy

1981			1991			2001			2011		
Total	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**
164	115	49	295	200	95	283	157	126	352	210	142

Sources: Census of India, Bilaspur District (C.G.)

Table No. 05, Village Newari – Literacy Rate In Surveyed Family

Total Population	Literacy Population			Illiterate Population		
	Total	M	F	Total	M	F
523 (93 Family)	337	194	143	186	82	104

Sources: Surveyed Date - 2014

Occupation Structure:-

According to 2001 census the number of total workers is 194 persons where e male is 131 persons and female is 63 person The main working Population in 190 which is 128 male person and 62 female persons. Given below table

Table No. : 06, Village Newari: Occupational Structure

Year	Main Workers					Marginal Workers	Non Workers
	Cultivator	Agricultural Labour	Household Industries	Other Workers	Total		
1981	73	158	01	07	239	05	324
1991	98	160	01	06	265	01	398
2001	67	108	03	12	190	04	323
2011	102	118	05	15	240	06	338

Sources : Census Data

Table No. 07, Village Newari – Occupational Structure Surveyed Family

Total	Cultivator	Agriculture Labour	Service	Yavsay	Other	Non-worker
542	97	124	15	12	12	282

Sources : Surveyed Date - 2014

In sample survey, the total worker populations is 350, where male is 184 person and female is 166 person. The total non-worker is 282 persons whose male is 146 and female is 136 persons - The total main workers found in surveyed village in 2014 is 350, in which is cultivator is 187, Agriculture is 187, Agriculture Labour is 124, other services participator is 39 person in village Newari.

Land Use:- Land use of Newari village given following table no. 08 -

Table No. 08, Village Newari – Land Use

Land Use	Area (In hectare)	% of Total Area
Forest	16.703	5.41
Fallow Land	12.509	4.07
Cultivable Land	14.396	4.66
Non Available for Cultivation	12.587	4.08
Land put on other uses	12.463	9.52
Net Sown Area	232.706	75.48
Total Area	308.301	100.00

Sources : Land Record Office, Bilaspur (C.G.)

Size Of Land Holding :-

Table No. : 09, Village Newari : Size of Land Holding in Surveyed Families

Caste	Area of Land Holding Size							Total No. of Family
	0 – 2	2 -4	4 – 6	6 – 8	8 - 10	10 – 12	Above 12	
GENERAL	13	8	3	4	4	3	1	36
OBC	6	-	-	-	2	-	-	08
SC	6	1	-	-	-	-	-	07
ST	6	2	1	-	-	-	-	09
TOTAL	10	10	4	4	6	3	1	60

Sources : Surveyed Data 2014

In our surveyed family most of the family comes under small farmers. 31 family have 0-2 acre land holding, 24 acre land Village Land holding family are 10, in General Cast family are total 13, size of 0-2 acre land size.

Table No. - 15 , Village Newari : Total Land Holding in Surveyed Family

Land Holding Size	Surveyed Family	Total (Area) Land Holding
0 – 2	31	35.8
2 – 4	10	32.1
4 – 6	04	22.2
6 – 8	04	29.3
8 – 10	06	60.2
10 - 12	03	36.1
Above 12	01	32.0
Total	**59**	**248.7**

Sources : Surveyed Data 2014

Irrigation :- In the Newari village the irrigated land in 76.50%, and non irrigated land of this village 23.50%.

Table No. – 01, Village Newari : Irrigated Land

Total Agricultural Land (Area)	Irrigated Land (Hectare)	Non-irrigated Land (Hectare)
269.63	206.283	63.3

Sources : Land Record Office, Bilaspur (C.G.)

Agriculture Pattern :-

Agriculture is the main base of economy of Newari. The primitive method of agriculture are found in this village some family are uses new methods and technology in ours fields. Most of agriculture land are small. The total Net sown area of the village 232-706 hector. Rabi, Kharif and Rabi two types of crop curveted in 249.931 hectare. Paddy and Tiwra are mostly production in area are respectively 213 · 193 acres and 21.317 acres.

Table No. - 12 , Village Newari : Agriculture Pattern

Crop	Area (In Acre)	%
Paddy	213.193	85.30
Wheat	4.047	1.63
Tiwra	21.317	8.52
Other	11.374	4.53
Total	249.931	100.00

Sources : Agriculture Statistical and Department, Bilaspur

Live Stock :- The villages have large number of livestock animal as well as these are domestic animals uses also agricultural and also used in agriculture fields.

Table No. – 13, Village Newari : Amount of Live Stock

Live Stock	Numbers
Cow	81
Ox	13
Bullock	20
Dog	04
Calf	33

Sources : Surveyed Data

Agricultural Equipments :-

Traditional method of agriculture are used in the agriculture field in many family but some farmer who have big size land holding they have used modern technology like machine tractor, fan, wishmuld seeds pa and other techniques. Generally plough and cart is the main agricultural equipments but in this Village 5 tractors and 7 winning fan use tube well for irrigation are founds during surveying.

Table No. – 13, Village Newari : Agriculture Equipment

Agriculture Equipment	Number	Used No. of Family
Bullock Cart	2	15
Ox Plough	12	35
Tractor	5	5
Thresher	3	5
Winning Fan	7	10

Income Level :- Agriculture is the main sources of income of the villagers in Mewari In surveyed family most of the family are come to the category are below 15000.

Table No. – 14, Village Newari : Income Level

Income Group in Rs.	Caste				Total Family
	Gen.	OBC	SC	ST	
0 – 15000	17	04	04	14	39
15000 – 25000	10	06	07	08	31
25000 – 35000	02	01	01	01	05
35000 – Above	19	01	02	04	26

Conclusion :-

From the above investigation, analysis and interpretation, it can be concluded that village Mewari is semi developed area, most of the people work as cultivators in their agricultural land. The main crop is paddy and another crop is tiwra, wheat. Few farmers are using HYV seeds got agricultural land is irrigated according to field surveyed report. The study also reveals that the socio-economic development of the study area is not found to be at a satisfactory level. The people depend on some other region or sources for their fundamental necessities. Though a lot of schemes and programs have been incorporated for the development of the blocks and various constitution and administrative facilities have also been provided to people, only some people have been benefited from these schemes and programs. The ratio is not up to the mark or satisfactory for their socio-economic conditions.

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Growth, Challenges, and Issues Related To Micro, Small and Medium Enterprises (Msmes) In Uttar Pradesh

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Abstract:
Micro small and medium enterprises play a crucial role in the socio-economic development of any country, especially for developing countries like India. It helps in creating employment opportunities, exports, gross industrial value of output contribution to G.D.P., boosting manufacturing, service, and infrastructure sectors of the economy. It retains the strategic important role in Uttar Pradesh MSMEs are complementary to large industries as ancillary units and these sectors contribute significantly to the inclusive industrial development of the country. The study is focusing on the growth, challenges and issues related to MSMEs in Uttar Prade
Keywords: - MSMEs employment growth, challenges, infrastructure, inclusive development.

Introduction: -

Uttar Pradesh is a state in the northern part of India covering an area of 2,40,928 km^2 equal to 7.3% of the total area of India and is the fourth largest Indian state by area. The state is divided into 18 divisions and 75 districts with Lucknow as the capital of Uttar Pradesh. The state has the population of 2,41,066,874 standing at first position population wise. The economy of Uttar Pradesh is the third largest state economy in India with Rs. 17.05 Lakh crore (US $220 billion) in G.D.P. and a per capita GSDP of Rs. 65,431 (US $860) Agriculture is the main occupation of people in Uttar Pradesh and plays a vital role in economic development of the state. The MSMEs generate 6,50,000 employment opportunities across the state. Uttar Pradesh has been emerging as the fastest developing state by enhancing its scope in various fields with the help of government initiatives. It has several locally specialized business clusters such as sports items in Meerut, brassware in Moradabad, Perfumes in Kannauj, leather in Kanpur, shoes in Agra, embroidered and skills sarees in Varanasi, carpet in Bhadohi, chikan work in Lucknow etc. The MSME also plays an important role in the development of the economy with their effective, efficient, flexible, and innovative entrepreneurial spirit (Dey, 2014). As per the Government of India (2000), the small-scale undertakings are those which are engaged in manufacturing, processing or preservation of goods and in which the investment in fixed assets, whether held on ownership terms or on lease or by hire purchase does not exceed Rs. 1crore. After the enactment of Micro Small and Medium Enterprises Development Act 2006, Small Scale Industries have been classified as Micro, Small and Medium enterprises. The Government of India has recently notified a new criteria for classifying the enterprises and has also introduced Udyam Registration instead of all the earlier registration procedures. An enterprise is classified as a Micro Small and Medium Enterprises based on the following composite criteria: -

Table-1 Classification of MSMEs

Type of Enterprises	Investment in Plant & Machinery not exceeding	Turnover not exceeding
Micro	Rs. 1crore	Rs. 5crore
Small	Rs. 10crore	Rs. 50crore
Medium	Rs. 50crore	Rs. 250crore

- **Excluding export Turnover**

Source: - Ministry of Micro, Small and Medium Enterprises

2-Objective of the Study: -

The objective of the study is to briefly highlight on growth potentials of micro, small and medium enterprises, identify the opportunities available for development of this sector, challenges and constraints controlled by these enterprises and to offer suggestions to overcome the same.

3-Methodology:

The study involves a critical analysis of functioning of Micro Small and Medium Enterprises in Uttar Pradesh and intends to identify the potentialities for growth, opportunities, major issues and challenges experienced by these enterprises.

4-Sources of Data: -

The data are collected mostly from secondary sources by way of access to various Government policies/programmes including published Annual Reports, Journals, Books and available official websites, press releases etc. MSME sectors contribution in country's growth and development consistent and remarkable over the preceding decades Statistics show that the number of each enterprise have increased form about 1.1crore in 2001-02 to 4.1crore units in 2009-10 and again to 4.48crore enterprises in 2014-15. The number of MSMEs in India increased by a CAGR of 18.5% from 2019 to 2020. The MSMEs are widening their domain across sectors of the economy producing a diverse range of products and services to meet demand of domestic as well as global markets. The MSMEs in India are playing a crucial role by providing large employment opportunities at comparatively lower capital cost than large industries as well as through industrialization of rural & backward areas inter alia, reducing regional imbalances, ensuring equitable distribution of national income & wealth. As per the Annual Report (2018-19) of the Ministry of MSMEs, Government of India, the share of MSMEs in the country's G.D.P. is around 28.9% MSMEs also contribute 48.1% of the total exports from India, 6.11% of G.D.P. from the manufacturing sector and 24.63% of G.D.P. from service sector. The share of MSME GVA in G.D.P. at current prices (2011-12) for 2018-19 and 2019-20 stood at 30.5% and 30% respectively (as per the ministry of statistic & programme implementation). Further, according to the Directorate General of Commercial intelligence and statistics, the share of exports of specified MSME related products to all India exports during 2019-20 and 2020-21 was 49.8% and 49.5% respectivel Under the Prime Minister Employment Generation programme (PMEGP), the estimated no of employment generated (No. of persons) in Micro Enterprises during the year 2020-21 and 2021-22 as on (01-07-2021) was 5.95 lakh and 1.19lakh respectively. Below is the number of MSMEs currently registered in Uttar Pradesh.

Table-2 Estimate No. of Enterprises

Type	No. of Units in Uttar Pradesh (in lakh)
Micro	89.64
Small	0.36
Medium	0.00
Total MSME	**89.99**

Source – MSMEs Annual Report 2020-21

Table-2 shows that the estimated number of enterprises in Uttar Pradesh under micro units category is 89.64lakh, whereas small enterprises are 0.36 lakh totalling to total MSMEs in Uttar Pradesh to 89.99 lakh.

5-Growth Potential in Uttar Prade -

Uttar Pradesh is rich in natural resources with abundant minerals, forest, flora, and fauna. It has well developed scope for food processing and agro based industries. It has a strong source base for mineral resources like marble, bauxite non plastic fire clay, uranium, limestone dolomite glass sand. ttar Pradesh is landlocked but has good connectivity in terms of roads, railways and air to other parts of the country. Government in partnership with private sectors have inked a pact for various infrastructure evelopment ogrammes U.P. is having a strong base for its key traditional industries comprising handicrafts, leather goods, carpet, textile, sugar, cotton yarn, jute, vegetable oil, glassware, bangles and cement etc. Uttar Pradesh has 21 notified, 12 perational SEZs and 24 formally approved SEZs. Merchandise exports from Uttar Pradesh reached US $13.80 Billion in 2017-18 and US $ 16.29 Billion in April 2018-March 2019. The exports from Uttar Pradesh Micro, Small and Medium Enterprises have clocked almost 6% growth to touch Rs. 890 billion during 2017-18 exports from U.P. have grown in the MSMEs sector under the following categories.

Table-3

Categories of Leading MSMEs sector exports from Uttar Pradesh

MSMEs	Growth (%)
Leather & Leather goods	11.3%
Carpets and Mats	11.4%
Glass and Glassware	14%
Readymade Garments	13.3%
Meat & Edible Meat	11.3%
Plastics and Articles	6.6%

Source – Compiled from MSMEs Annual Report

The large disparity between the eastern and western U.P. is another challenge, But due to the expressway connecting Purvanchal districts with Delhi, two airports including an international one at Kushinagar and promotion of local products and handicraft have opened up the region to investment and job opportunities which will boost the economy.

The strong point of the state is that it has a rich labor pool. It has a large base of skilled semiskilled and unskilled labor making it an ideal destination for MSMEs sector.

6- Major challenges faced by MSMEs in Uttar Pradesh: -

MSMEs contribution in the economy of states like Uttar Pradesh is noteworthy. However, MSMEs face may challenges in its way that are described below:

Financial Issues: -

In the Indian economy access to finance has always been an issue for smaller firms and business. The industries and MSMEs sectors of Uttar Pradesh also face the same hindrance of finance. They face difficulties in accessing cheaper credit from formal Banks.

Regulatory Issues: -

Various regulatory issues are also creating problems for MSMEs sectors. Regulatory issues like tax compliance changes in labor laws as a result it has become very difficult for MSMEs to comply with these regulations and register for tax compliance and leading them to shutting up.

Infr0astructure: -

The infrastructure facilities are important for MSME sector development which are not very developed in Uttar Pradesh where focus should be drawn

Low Productivity: -

MSMEs are not necessarily very productive. It may become productive. It may become productive only when it becomes cost efficient and is capable of creating high volume at very low cost.

Technical Changes: -

There has been a dearth of technical changes overtime, and most industries have undergone some form of change in order to remain competitive. As a result, Indian MSMEs have had to deal with some very important changes which have affected their growth potential.

Other Challenges: -

The MSMEs in Uttar Pradesh suffer from various other issues as mentioned below-

- Unduly delayed payments by large industry players.
- Low managerial capability.
- Limited capital and knowledge.
- Ineffective marketing strategies.
- Non identification of new markets.
- Hurdles in growth, expansion, modernization and innovations.
- Lack of adequate warehousing facilities.
- Lack of skill and trained workforce.
- Ruthless competition

Issues Related to MSMEs in Uttar Pradesh: -

The state has made some headway in building an environment that supports investment, but much more has to be done in order to make this a reality. Stakeholders have raised many problems during meetings related to ‘Evaluation of competitiveness among North India state’s,’ which is being carried out by CUTs international.

Problems with the single window solution concerns have been voiced by the sector over the ineffectiveness of U.P. Government’s single window system approvals. The time frames set out in the act and government order are not being followed. Adding to the complexity, other windows are hidden beneath the main one, making it difficult to complete tasks.

- Udyog Bandha’s dysfunctional high-powered committee has been established to address the challenges encountered by enterprises and to provide recommendations on ways to simplify the rules-Industry association from all throughout the state are also permanent members along with principal secretaries from several departments relating to industry. There’s been a lack of cooperation among members of the committee over the last several years, though.
- Institutional memory is lacking because of frequent bureaucratic turnover, the system's institutional memory is at risk.
- Power is expensive, high cross subsidies in the state have led to complaints from industry over the state's high industrial tariffs. This adds to the total cost of doing business for the industry.
- The availability of financing for businesses, the state finance corporation (SFC) and the bank are unable to meet the financing needs of the micro, small and medium enterprises MSMEs.
- Due to lack of a well-functioning land bank as in the case of most other North Indian states the state lacks a functional land bank mechanism to help with land allocation for companies. There is a lot of land in the state of Uttar Pradesh that has been purchased by the government but has yet to be used for industrial development.
- EoDB changes haven’t been sufficiently communicated to industry. The situation is exacerbated for small and medium sized businesses (SMEs) who are often left in the dark about existing norms and regulation and must thus rely on intermediaries to do routine tasks.
- When it comes to political sensitivities the political climate in the state of Uttar Pradesh is quite delicate as a result any new initiatives will face a significant degree of political opposition. This complicates the process of drafting and implementing policies.

Suggestions: -

According to the study and analysis of research topics the following suggestions are recommended for the growth and development of MSMEs in India.

1. Easy Credit Availability: -

Banking system of Uttar Pradesh must provide sufficient and easy credit to MSMEs to fulfill their requirements related to establishment and operational activities at a reasonable rate with less complicated documents.

2. **Conducting Training & Development Awareness Programs: -**

The Ministry of MSMEs and Uttar Pradesh Government must make proper arrangements for conducting Training & Development Programmes to impart knowledge related to technical know-how. There are currently running programs which are not so effective and sufficient may be due to lack of awareness or knowledge about their likely benefits.

3. **Relaxation in Labor Laws & Red Tape: -**

There should be relaxation in complex labor laws to avoid inconvenience in compliance. Red tape must be avoided so that MSMEs can perform smoothly and efficiently.

4. **Easy Availability of Technologies: -**

The number of appropriate technologies for the MSME sector have developed in various sectors. The technologies must be made easily available to MSMEs so that they can perform efficiently and uninterruptedly.

5. **Proper Research & Development: -**

There should be proper research and development undertaken in respect of innovative methods of production and service rendering. The innovative products will provide cost efficiency and more customer satisfaction and the MSMEs of Uttar Pradesh will be able to cope up with the situation.

Conclusion: -

MSMEs sectors have immense potential in Uttar Pradesh in employment generation or export contribution; it is proving itself as a growth booster of the Indian economy. The U.P. government is putting efforts to boost the growth of MSMEs. After analyzing the performance of MSMEs in Uttar Pradesh it can be concluded that MSMEs a blooming sector of Uttar Pradesh and have a huge potential in longer from development prospects.

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Understanding the Dynamic Role of Teachers in Educating Hearing Impaired Children

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DOI-10.5281/zenodo.7043053

Abstract
The capacity to hear, as one of our most critical senses, enables us to communicate to the world for a variety of extremely significant, even vital, reasons. Most significantly, hearing binds us to others, allowing us to converse in ways that our other senses cannot. Understanding what someone is saying requires more focus and might be exhausting if there are several individuals talking or there is background noise. Hearing loss can have a slight or severe impact on a kid. A youngster with significant hearing loss may be considered "deaf." Hearing-challenged children's learning issues are mostly due to difficulties with speech and language which might vary depending on their degree of hearing loss. When students face new words in the classroom, they struggle. Seating arrangements are critical when a student who is deaf or hard of hearing is put in a classroom for general education. Because not every kid will be comfortable discussing their condition, it is best to confirm ahead of time but instead of pushing a class discussion. If the kid feels self-conscious about his or her impairment, the instructor must establish a welcoming environment in the classroom. This sort of setting will make the youngster feel comfortable and safe at school, making studying more enjoyable. This article discusses the role of schools and instructors in the education of hearing-impaired children, as well as assistive technologies for hearing-impaired children.
Keywords: hearing impairment, teachers, school, assistive technology, strategies…

Introduction

Hearing is a basic sense that is deeply ingrained in our daily lives. It aids in our safety, communication, socialization, and enjoyment of life. Consider all of the noises you hear on a daily basis: a child screaming, a bird chirping, a buddy speaking, or a beautiful song on the television. It also keeps us connected to the external world and keeps us secure by alerting us to potential threats. A ringing phone, a wailing infant, or the start blasting of an automobile horn are just a few instances of critical messages that we must be able to hear. Children begin learning to communicate as soon as they are born. They are continuously listening, and they immediately know their mother and father's sounds. They learn to communicate by mimicking the noises they hear. Hearing loss and hearing impairment are words used to describe children and people who have less-than-normal hearing. The ear is a sensory organ that assists us in hearing and communicating with others. It is frequently referred to as a "masterpiece of bio-medical engineering." The ear and the hearing or neurological pathway are the two basic components of the human auditory system. Hearing loss is relatively prevalent in youngsters. Approximately 1.9% of toddlers have hearing problems, and more than one out of every 100 000 people assessed for hearing loss, no matter whether they exhibit symptoms, has irreversible hearing loss. Sensorineural hearing loss and deaf are not always synonymous. Deafness is commonly defined as hearing loss higher than 90 dB, however any obstacle to listening is considered deafness–whether temporary, permanent, or variable - has an influence on a child's social and emotional development, reading skills, and speech and language ability. While hearing abnormalities are frequently discovered in neonates, they may not progress or manifest for several years. This implies that it's critical to look for indicators of severe hearing loss in the classroom, especially in young children, because you may find yourself teaching a child with an undetected hearing disability at some time in your career. Without the proper assistance, going to school with a hearing impairment or impairment may be a difficult, lonely, and eventually productive journey for a child. Sensorineural hearing loss and deafness are not always synonymous. Deafness is generally defined as hearing impairment greater than 90 decibels, but any hindrance to hearing, whether temporary, permanent, or fluctuating, affects not only a child's experience in the classroom, but also their socio-emotional, reading skills, and language and communication abilities.

Hearing impairment

Sensorineural hearing loss and deafness are not always synonymous. Deafness is generally defined as hearing impairment greater than 90 decibels, but any hindrance to hearing, whether temporary, permanent, or fluctuating, affects not only a child's experience in the classroom, but also their socio- emotional, reading skills, and language and communication abilities. In most cases, children who are born deaf are born into hearing families (Humphries et al., 2014). Hearing loss is a severe issue in early development that can have a negative impact on a child's academic success as well as interpersonal and social skills later in life. Hearing loss refers to any degree of limitation in the capacity to perceive sound. Hearing loss, often known as deafness, is the inability to hear to some extent or completely. Deaf people have little to no sound. Deafness is a condition that impairs one's capacity to hear. It refers to a total incapacity to hear. Individuals with impaired hearing are not included in the diagnostic category of deafness underneath the Individuals with Disabilities Education Act (IDEA). People with impaired hearing would be handled under the IDEA's hearing impairment category. Deafness is specified by the National Association of the Deaf (NAD) as the "audiological state of not hearing." People with NAD have very restricted hearing and must rely on their restricted abilities to hear for effective conversation. Hearing loss can affect one or both ears. Hearing loss that is symmetrical and permanent is expected to occur in 1.2 to 5.7 out of every 1000 live births. There are three types of hearing abnormalities that can arise in young children: conductive hearing problems, which is generally a transient interference when obtaining audio from the outer ear to the medium or inner hearing; sensitive profound hearing handicap, which is a permanent impairment when obtaining sound from the ear to the mid or inner ear; which is a long-term abnormality of the inner ear's cochlear hair cells, acoustic nerves, or the acoustic center of the brains; and lastly, mixed poor hearing, which is a mixture of the aforementioned impairments. Hearing impairments that arise before a kid begins to talk are referred to as "pre-lingual," as contrasted to post-lingual hearing impairments that occur after the child has learned to speak. This is described as the capacity to hear noises that range from 0 to 25 dB in children with normal hearing. Adolescents with untreated hearing loss are classified using the following criteria: modest, in which a youngster may hear noises ranging around 26 to 40 dB and speech and conversation are usually unaffected, but distant noises may be difficult to hear; mild disabilities, in which a youngster may hear sounds ranging from 41 to 70 db but lacks the capacity to compose sounds and hear regular conversation tones; and severe damage, in which a youngster may hear noises ranging from 71 to 90 dB and necessitates a hearing aid to pick up normal-level conversations. A kid with substantial hearing impairment can only hear noises over 90 decibels, and while a hearing device may assist, he or she will be able to talk with normal articulation.

Role of schools in supporting hearing impaired children

Hearing impairment loss is typically detected before a kid begins school. Mild to severe hearing loss, on the other hand, may not be detected until a kid is older. Hearing loss caused by an injury, sickness, or disease can also occur later in life. Teachers should be aware of the indicators of hearing loss in their classrooms and should recommend hearing screenings as needed. When children can't hear well, they are typically reluctant to speak out, so look for patterns of behaviour, including the indications listed above. Whether a kid frequently asks you to repeat directions, misunderstands inquiries, or doesn't respond when your call their name, check-in in discreetly to see if they're having hearing problems. Even if they swear they aren't, keep an eye out for indicators and don't be afraid to talk to their parents. In the educational system, a deaf or hard-of- hearing youngster might study in a variety of methods. These are frequently classified into two broad categories: "residential" and "mainstream." They all offer several advantages and disadvantages that every family of a mentally handicapped of listening kid must carefully consider before picking wherever to send them for the finest education. Residential schools were once the most prevalent option for deaf kids. Most of the time, these are residential institutions that educate students from or before to 12th grade. Students reside at the school and attend classes with just deaf and hard-of-hearing students. However, boarding schools have recently fallen out of favour as more parents choose institutions where kids do not reside on campus. Many institutions actually prohibited the utilization of gestures on campus until recently. This motivated pupils to transmit signs to one another in secret, so perpetuating deaf culture. Nonetheless, most residential schools now tolerate or even teach sign language. These schools are particularly built for deaf and hard-of-hearing pupils. The majority of the team is generally deaf, and pupils are often able to converse with their peers for the initial time in their life. In a hearing environment, these pupils have deaf adult mentorship, which might be difficult to come by.

Effect of hearing impairment on child's learning

It makes no difference whether the hearing loss is light or minimum, tinnitus, sensor neurological, or severe; any level of hearing loss will influence a child's achievement at school and is frequently directly proportionate to the level of the loss. Children with hearing impairments often show significant delays in phoneme production, vocabulary, and syntax (Schirmer, 1985; See-wald, Ross, Giolas, & Yonovitz, 1985; Skarakis &Prutting, 1977). Every day, students who are deaf or hard of hearing miss out on a plethora of knowledge from the discussions around them. Many name sounds the same to individuals, so they have to work hard to identify what's being spoken around them, in contrast to talks addressed at them.

The extra attentive effort is always required, which can soon lead to exhaustion for the youngster. Some more elements that lead to listening effort weariness are as follows:

- **Aural Bombardment -** When a youngster wears a hearing aid, they are assaulted with a massive quantity of auditory input that is impossible to ignore.
- **Recognizing Speech Sounds -** As previously stated, several language sounds the same or extremely similar to children who have hearing loss. They must use tremendous effort just distinguishing speech sounds, such as the distinction among mother and brother or between father and daughter.
- **Cognitive Load -** When a person with hearing loss is presented with new material, they spend most of their efforts recognizing speech sounds. As a result, they have limited cognitive capacity to comprehend and store new knowledge.
- **Stressful Learning -** Most of these concerns are readily solved for normal hearing pupils, with only minimal conscious attention required. Constant listening, learning, and rethinking is exhausting and frustrating for children with hearing disorders. According to research, learning cannot take place amid stressful situations.

Role of teachers in educating hearing impaired children

Hearing is what keeps us connected to our surroundings. It is important in both expressing and receiving language. Hearing loss creates problems in how an individual expresses and receives language in turn causing social, communication, and educational problems (Hall, Oyer, & Haas, 2001). When constructing their programs, educators must seriously contemplate the immediate and long-term implications of how tinnitus inhibits a person's capacity to perceive spoken language. When educating hearing-impaired youngsters, teachers must take additional precautions. Much of the thought includes common sense, which is honed via strong cooperation with the school, the student's family, and the speech-language pathologist (SLP). On a daily level, the student and kid's family may definitely provide the teacher assistance via constructive feedback of what is and isn't functioning for the child within the classroom.

Teachers must be aware that there is generally more than one physical event happening at the same time, such as a teacher speaking while expecting pupils to take notes on the lecture. It is unrealistic to expect a hearing-impaired learner to understand speech and take notes all at once. The primary notes might be given to that student ahead of time so that the scholar can concentrate on lip-reading the lecture. Volunteer note-takers might be assigned to assist hearing-impaired pupils in higher grades or at universities where note-taking is required on a regular basis. Many difficult-of-hearing of hearing pupils will also be forced to take increased workload home to prepare for the next day's class subject.

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Strategies in educating hearing impaired children

Educating pupils is a long-term investment. Almost every government in the world is making every effort to increase literacy among its population. Although each child is unique, children with extraordinary abilities require a little more time and care than typical students. This article is solely concerned with improving teaching methods for pupils who are deaf or hard of hearing. According to one survey, 3% of pupils suffer from hearing loss. An oath was taken and it was decided that the purely oral method must be preferred, in the schooling of the Deaf (Edwards, 2012). Hearing loss may be a significant barrier for pupils, impeding their academic growth and ease of learning. With a teacher who is fluent in diacritical marks, the teaching method of autistically challenged kids requires specific changes to assure the students' ease of learning. Some aspects were discussed in depth in order to learn better teaching practises that would assist both instructors and parents of kids with hearing impairments.

Clear Pronunciation: Aside from sign languages, audibly disabled pupils generally rely use lip-syncs to hear what a speaker says. If the language is incorrect, the pupils will become confused, impeding their interaction with the teacher.

Eliminate Ambient Sounds: It is usually recommended to eliminate any source of noisy environment in the classroom, especially if the pupils are wearing hearing aids. Wearable devices do not filter out any specific sounds. Rather, they just magnify any accessible noise. As a result, utilizing hearing aids in conjunction with strong noisy environment will not benefit hearing-impaired children.

Incorporate Graphical Tools in Learning: Visualizations are valuable to all students, including those with normal hearing. Writing down the sentences or utilising photos, movies, and slideshows will not only benefit the deaf students to the greatest extent possible, but they will also make the lesson exciting for them.

Make the Most of Technology Today: Technology is continually evolving, and many instructors are using current and novel strategies to improve their teaching methods. To transfer information more thoroughly, classrooms created expressly for hearing challenged students are outfitted using Interactive White Boards (IWBs) and template devices.

Record the Meetings: Aside from storing it for future reference by any student, documenting or taping a specific conversation can certainly assist many students all over the world. It may be posted to many websites for hearing-impaired students, and the greatest number of students will benefit.

The government has developed several schools to help hearing-impaired pupils in obtaining a basic education. But modern world has gone a long way since limiting pupils to basic instruction due of hearing impairments.

Assistive technology for hearing impaired children

Any item, piece of machinery, software programme, or information of the product that is used to improve, enhance, or strengthen the functional capacities of people with impairments is considered assistive technology (AT). It does not cure a student's learning impairment, but it does allow them the opportunity to work to their full capacity and on a comparable level as its non-disabled classmates. It can also boost pupils' self-esteem because they're no longer too reliant on instructors and parents. Among the assistive technologies that help hearing-impaired youngsters are:

- **FM System-** FM systems transmit the teacher's voice directly from wireless microphones to a receiver worn by a hearing-impaired student. It may be linked to an earpiece or bionic implant, as well as a headset or earbuds. This improves what the youngster can hear because they can immediately absorb the professor's speech without interruptions.
- **Closed Captioning-** When a video or audio is being played, closed captions display spoken conversation as typed text on the screen. Schools are obligated to utilise captioned videos and audio if specified on a child's IEP.
- **Augmentative and Alternative Communication (AAC) -** AAC gadgets are communication devices, methods, tools, and techniques that substitute or supplement verbal communication for those who have trouble speaking. They employ visuals or figures to represent words, which kids may then use to form phrases or sentences in order to communicate nonverbally. This is an effective method of communicating between deaf kids and their instructors and peers who do not understand sign language. The majority of AAC devices used in schools are iPads/tablets, however they may also be completed on paper.
- **Speech to Text-** Devices that translate spoken words into the printed text are known as speech-to-text devices. Many apps on mobile devices utilize a microphone to discern what the user is saying and then convert it to characters on the screen. This may be a useful tool throughout lectures so that students can give heed to what the speaker is saying and use the transcription as their notes instead of taking notes.

Conclusion

There are many different types of hearing loss, ranging from minor to severe. Students who manage difficulties in the classroom are either ashamed to reveal them or lack a complete understanding of the services that are offered to them. Colleges and universities really shouldn't wait expecting individuals to self-advocate for accessibility modifications with this understanding in mind. Individuals with hearing impairment may appear to be alone in the classroom. As a result, each youngster has his or her individual set of challenges. Technology can help pupils achieve their full intellectual qualifications. We can create an equal fair field for all pupils by providing them with a few tools. There are additionally low, medium, and high technological augmentative communication alternatives, which frequently function well together. Allow students to tape lectures or, preferable, make copies of your high-techlecture notes available. Flexible distribution of educational resources via digital media is also advantageous for learners who have trouble obtaining information in traditional methods. New technology, particularly the internet, can help students with hearing loss bridge numerous gaps.

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Karanja Residency and the Marathas

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DOI- 10.5281/zenodo.7052456

Abstract- Karanja is a small island about eight miles long and four miles broad, situated at latitude 18^0 15' and longitude $73^0 2^1$. It lies about six miles south east of Carnac Pier oil Mumbai Harbour. On the east it is cut off from the main land by the Bendkhal Creek, which at high tide is inaccessible from Panvel by road. The island rises in two rocky hills, km in the north and high in the south, between which lies a strip of land wooded with mango trees and plains. To the east of the island, there are salt pans which divide the Creek into several small branches, while one arm of the Creek runs from Mora[2] Bunder in the north to Uran[3] in the south. It is deep enough for boays to ply[4].
Since Company's control over Mumbai they tired to possess Karanja several times.[5] On failing which Aungier, the head of Surat factory wrote to the Directors to improve the fortification of Mumbai. In his opinion the Marathas threatened not only the trade of the Company but its very existence on the Western coast of lndia.[6] He wished to enter into a defensive treaty of friendship and free trade with the Portuguese. He concluded that the safety of Mumbai depended very largely upon the neighbouring islands of Karanja and Salsette, which were the Portuguese Possessions.[7] He, therefore, suggested that the two neighbours should act together Aungier's draft treaty contained some commercial clauses which would have conferred on the. British, the freedom of passage at Thane and Karanja. The Portuguese did not like to grant these necessary concessions for British Trade.[8] Aungier urged the Company authority to sanction him some additional men and money so as to enable him to capture karanja [9] finally, the Company conquered the island of Karanja in 1774 and made it a Residency.[10] In the following March, the conquest of Karanja was confirmed by the Treaty of Surat[11], the confirmation was reaffirmed by the Treaty of Purandhar[12] in March 1776. It was finarrly ratified by the Tready of Salbar[13] in 1782.[14]

The treaty of Salbal, 1782, is an important landmark in the History of India, Mahadji Shinde emerged as prominent member of the Maratha Confederacy, as he had personally guaranteed the proper observance of this treaty. Governor General Warren Hastings gave him a free hand in the Mughal affairs at Delhi, However, the growing friendship between. Hastings and Mahadji was looked upon with suspicion by other members of the Confederacy for some time.[15]
After the first Anglo-marath war the Company authorities maintained cordial relations with the Peshwa and other members of the Maratha Confederacy and avoided taking up any controversial issue with them. However, this cordiality did not last long. On 8 April 1783, 'Rangers under the commandant of Lt. Puren a small British vessel carrying twelve guns was attacked by the Maratha ships off the coast of Ratnagiri, while on its way to Calicut, 5 British officers, 28 sepoys and 8 injured. Anantrao Dhulap, the traditional naval chief of the Marathas captured five British ships and detained them at Vijaydurg[16]
Enraged Company officials complained to Mahadji Shinde about the high handed action of the Marathas who held Nana Phadnavis responsible for it, Nana then released the captured British ship and goods and further compensated the British for whatever loss they had suffered during the attack. The matter was thus settled amicably[17].
Inspite of the Treaty of Salbai Raghunathrao continued to remain under British protection at Surat. lnspite or repeated requests ,of Nana and Mahadji Shinde the Company authorities refused to hand Raghunathrao over to their. Meanwhile. Raghunathrao continued to insist upon the Company authorities that they restore him to Peshwaship. He also sent his representatives. Hanmanttao and Marriort to Landon to represent his case before the British government but they had to return empty handed after having spent one year in London. A trustrated and disappointed Raghunathrao died on 11 December 1783 at Kopargaon leaving behind his widow and three sons. Thus, a Major factor in the anglo-Maratha conflict was eliminated. [18]
Inspite of his profession of friendship with Mahadji, Warren Hasting's tried to counter his growing influence in the Mughal Emperor and offer his the financial and other help. But the Emperor refused to respond to the Maj. Browns offer, Warrne Hanstigns then went to Lucknow and camped there for a long time with a view to persuade the Emperor to accept British help. Mahadji Shinde obviously did not like Hasting's interference in the Mughal affaris. He therefore protested to Hastings who then offered some lame excuse saying that the Mughal prince Jawan Bakht was pressing him to espouse the Emperor's case against the Marathas.[19]
The Treaty of Salbai put the marathas under an obligation to help the company autorities to recover their former territories in Karnataka from haidar All Meanwhile, Tipu Sultan had replaced Haidar Ali on the latter's death on 7 December 1782. The Company authorities then sent General Mathews with a British force to Malabar. Although initially General Mathews with a British force to Malabar. Although initially General Mathews was able to

capture Honawar ane manglore on his way to Malabar later he was decisively defeated by Tipu Sultan. The Company authorities were then forced to sign the Treaty of Manglore with Tipu without consulting either Nana or Mahadji. The treaty give the Company authorities a temporary respite, it proved to be a short-lived treaty.[20]

In July 1785 a British ship 'Rodney' was on its way from Mumbai to China with some cargo. Bad weather and rough sea compelled it to seek shelter in the Maratha port of Gheria, where its captain and crew members arrested and goods thereon was plundered by the Marathas. the ship was badly damaged, it could not process further without extensive repairs. This was a clear violation on the Treaty of Salbai on the part of the Marathas. [21]

When Hastings resigned on 12 September 1786, Lord Cornwall is succeeded him as the Governor General of India. In the meanwhile Tipus Sultan was found conspiring with the Frence against the British in India Cornwall is therefore was determined to defeat Tipu with a View to form an alliance against tipu, Cornwallis instructed Resident Malet[22] at Poona to negotiation alliance with the Marathas. Malet had lengthy consultations with the Mumbai Governor about the nature of the proposed alliance between 29 March and 11 April 1788. However, Nana soon relized that other members of the Maratha Confederacy were reluctant to accept any alliance against Tipu Sultan, who in there opinion, could effectively check the growing British power in India. Later, mainly because of Malet's persistent efforts a treaty was concluded between the British and the Marathas on 1 July 1790 at Poona in terms of which forts and territory conquered in the ensuing war with Tipu to be divided equally amount them.[23]

Soon thereafter a Maratha continegent of soldiers under parshuram Bhau joined the British army under Cornwallis, in a Joint action thery defeated Tipu but could not crush him completely. Meanwhile, under instructions from the London authorities, Cornwailis, was forced to condlude a peace treaty with Tipu on 11 February 1792.[25] Thereafter Tipu sectetly met the Maratha commander and tried to convince him that the British and not he were their real enemy. Tipu also cautioned the Maratha commander against the British.[25]

Later Parshuram Bhau, and Nana sought Cornwallis's help against Mahadji Shinde but Cornwallis refused to do so since Mahadji was a friend of the British as it turned our, sharp differences between Nana Phadnavis and Mahadji Prevented the Marathas from taking any concerted action against the British in India. [26]

Malet continued as British Resident at Poona up to 1797, endeared himself to a young Peshva and witnessed many changes which took place at the Poona court during this period, he advised both Cornwallis and John shore to follow a policy of patience towards the Marathas while Nana and Mahadji were on the scene.[27]

Mahadji Shinde died on 12 February 1794 at Wanawadi after a brief illness. Some days before his death he had adopted Daulatrao, a 14 year old son of his cousin. To John Shore Mahadji's death meant favourable turn ot events for the British.[28] For he had effectively checked their ambition in the mughal court and had not liked the Anglo-Maratha alliance against Tipu. He also wanted the Marathas to have close relations with Tipu.[29] On 27 October 1795 Peshwa Sawai Makhavrao jumped to his death. [30] From the first floor of the Shanwar Wada. Since he died without an issue he should have been succeeded, by one of his cousins Bajirao, Chimnaji & Amritrao sons of Raghunathrao, However, Nana was opposed to all of them. He therefore proposed that the late Peshwa's widow yashodabai should adopt a son in whose name he would carry on the administration.[31] Nana’s plan was opposed by other members of the Confederacy. on 26 November 1796, Baloba Tatya, Daulatrao's representative, informed Malet about Daulatrao's opposition to Nana's plan. But Malet refused to commit himself in fovour of either Mahadji or Bajirao since the British were obliged to follow a strict neutral policy. [32]

Later, Doulatrao agreed to help Bajirao in his attempt to secure Peshwaship in return for Rs.1,25,00,000 in cash and jigir worth Rs, 25,00,000/ per annum.33

When Nana came to know about this plan he decided to make Chimnaji the Peshwa and retain the administration with himself. He then informed Malet of his plan and sought his support.[34] Nana then dispatched parshuram Bhau to Shivner fort to escort Chimnaji back to Poona but Bajirao strongly Parshuram bhau who had to return empty handed to Poona. Nana was then compelled to accept Bajirao as the Peshwa Bajirao II as he was popularly known, was the eldest son of Raghunathrao.[35]

Bajirao had spent most of his formative years in jail and so he did not have the necessary training or experience to assume the onerous responsibility of the office of Peshwa. He was therefore bound to fae many problems and difficulties. The most immediate and pressing problem before him was the one about his agreement with Daulatrao in terms of which he had to give Daulatrao Rs.1,25,00,000/- in cash and jagir worth Rs. 25,00,000/- per annum. after he became the Peshwa. However, Bajirao refused to honour his agreement on one pretesxt or the other. [36] Taking advantage of Bajirao's absence from Poona, Daulatrao managed to install Chimnaji as the Peshwa on 12 May 1796.[37] Although both Nanaand mallet knew about Daulatrao's plan Bajirao himself was completely in the dark about it.[38]

However, Nana refused to acknowledge Chimnaji as the new Peshwa. He also claimed the most of the members of the Confederacy were vehemently opposed to Chimnaji becoming peshwa. He also sougth Malet's help in installing Bajirao in the office of Peshwa for which he was ready to cade to the British territory wort Rs.25,00,000/- per annum, However, the company authorities refused to interfere in the internal affairs of the Marathas. [39]

In July 1796, Nana inflicted a decisive defeat on Daulatrao with the help of Tukoji Holkar and Raghuji Bhosale. He had promised to pay them Rs.15,00,000/- each for their help.[40] On 25 November 1796 Nana convened a meeting of all members of the cofederacy to seek their support for Bajirao's Peshwaship and Naro Chakradeo, the Commander-in-Chief.[41]

After the death of Tukoji Holkar, Nana supported Malharrao, his second son in place of Kashirao, the eldest son who was an imbecile. Later Daulatrao put to death malharrao, arrested Nana on 31st December 1796 and put him in Ahmadnagar jail. [42] In the meanwhile Sarjerao, Diwan and father-in-law of Daultarao went on rampage in Poona is an attempt to collect the money which Bajirao had promised him. [43] Amritrao then caused Daulatrao to be arrested and forced him to leave Poona.[44]

Finding himself in a difficult situation daultarao released Nana and sought his friendship to counter Bajirao and amritrao. Nana agreed to pay him Rs.10,00,000/- in return for his release from the Ahmadnagar prison[45] Nana was badly shaken by his brief imprisonment. Although he continued to discharge his duties he was unable to bear the humiliation and insuits which Doulatrao had inflicted on him. He became a physical and mental wreck, his health started deteriorating. On 13 March 1800, he died. [45]

Nana's death removed allrestraint on Doulatrao Doulatrao because of which Bajirao's position become precarious.

Moreover, Yashwantrao Holkar and many other maratha chiefs supported Amritrao in his attempt to become the Peshwa.[47]

Amritrao then invited Yaswantrao Holkar to Poona with a view to pressurize Bajirao to give up the Peshwaship. On 8October 1802 Yashwantrao Hokar defeated Bajirao's forces at Baramati which caused a panec in Poona. [48]

Scared of his insecure position Bajirao left Poona to seek shelter at Mahad from where he was escorted to Vasai on 17 December 1802 where he was received by Col. Close.[49] He then signed the famous Treaty of Vasai with Col. Close on 31 De cember 1802. Is was raified by the Governor General on 18 March 1803.[50]

Both Amritrao and Yashwantrao were very much disappointed by this, treaty, especially as it provided that Bajirao should be restored to the Peshwaship. Yashwantrao felt that British would treat Bajirao the same way as they had treated Tipu Sultan.[51]

Col. Close then wrote to Yashwantrao that in terms of this treaty Bajirao would soon be restored to Peshwaship and yashwarntrao should go away from Poona if he wanted his grievances against Bajirao to be redressed by the company authorities.[52] Yashwantrao left Poona for the north on 13 March 1803 which Amritrao went to Junnar and requested Col. Close to pressurze Bajirao to grant Amritrao a suitable pension. Bajirao arrived in Poona on 13 May 1803, to assume the Peshwaship. The occasion was celebrated for a number of days by the Maratha chiefs with much pomp and show.[53]

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12. H.H. Dodwell, The Cambridge History of India, S.Chand & Company Vol. P.P. 260, 261
13. G.S. Sardesai, op. Cit. Vol. III, P.P. 111, 119.
14. Gazetteers of India, Maharashtra State, Gazetteer, Kolaba District, P. 820.
15. Forest, Op. Cit, Vol. III, P. 978.
16. Vijaydurg or Geria fort is about 170 miles south of Mumbai, it is a port in the Devgad Taluka of Sindhudurg district, in 1698, Konoji Angre made it the capital of a territory stretching far about 150 miles along the coast, in 1756, the fort was abandoned by the British under admiral Watson and Col. Clive took possession of it towards the close of the same year, it was handed over to the Peswas in exchange of Bankot. Imperial Cazetters of Bombay Presidency, Vol. II p.170, and Khare, Altihasik Lekh Sangrah, Vol. IX. Bhan

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17. Sardesai, G.S. Op. Cit, VI III, P.122
18. G.S. Sardesai, O. cit, PP 124-127
19. H.H. Dodwell, Letters of Warren Hastings, S.Chand & Co. 1930 P. 193.
20. J.C. Marshman, Op. Cit., Vol. I.P. 410.
21. Secret and Political Dairy No.32, Letter dated 8 February, 1785. p.10
22. Malet was born in 1752 and entered the company service in 1770, as a writer at Mumbai. He was posted at the factory of Cambay in 1755, Where he helped Raghoba who proceeded in British ship, to Surat and subsequently concluded the treaty on Surat with the British. The treaty gave rise to the first Anglo-Maratha War. His diplomatic intercourse with the Maratha Government in ten long year of his residency succeeded In weakening the Marathas cohesion and enhanced the British prestige and power. He was the first British statesman to give the Marathas a forestate of all sided western penetration. G.S. Sardesai, Op. cit. Vol III, P. 196.
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33. Grant Duff, Op. cit, Vol II, P. 256.
34. Khare. Op. Cit. Vol lX, Letter No. 3662
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Environmental Awareness among Higher Secondary School Students in Coimbatore District in the Current Scenario

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DOI- 10.5281/zenodo.7052462

Abstract: Environment refers to the sum total of conditions which surround man of a given point in space and time. The natural environment is composed of atmosphere earth, water and space. If natural environment remain clean and it is quite enjoyable then, the unpolluted environment is called as a normal on and then interaction of the atmosphere, lithosphere, and hydrosphere with biosphere always continues to create a normal natural environment, unfortunately, on account of industrialization, population, explosion, construction, transportation. The composition and complex nature of the environment gets change. Environment in developing countries like India have been threatened by problems like poverty, pollution, over population and degradation and depletion of environment for this study environmental awareness should be provide to the school as its foundation helps the individual to be are responsible citizen.

Keywords: Environmental Awareness, Climate Change, Over Population, Pollutions and Sustainability.

Introduction

Environmental awareness shapes a hierarchy of values and at the same time has an influence on the sense of responsibility for inappropriate choice of values. The school students awareness of the environment means the ability to emotionally understand the surrounding world, including the laws of the natural environment, sensitivity to all the changes occurring in the environment, understanding of cause and effect relationships between the quality of the environment and human behaviour, an understanding of how the environment works as a system and a sense of responsibility for the common heritage of the earth, such as natural resources with the aim of preserving them for future generations. The knowledge acquired during school education and then systematically improved in adulthood, is an essential factor in heightening the environmental awareness of an individual and at the same time, an indispensable condition for the development of a pro-ecological life style.

Significance of the study

Normally the most obvious concerns about the environment is associated with many projects by means of any development are the various forms of pollution. In the wake of the awaking on environmental issues that swept across the world. This education was included in the curricula with the idea to sensitize the students. It is very essentials to safe guard and enhances the environment for the benefit to present and future generations. An environmental awareness in decision making process for all the activities and the research project has to be created. New initiatives and additional measures are required to complement existing efforts to achieve sustainable development with conservation of natural resources and sound management of the environment. Hanisch et.al (2014) explains the environmental awareness is very important for environmental management as well as the protection of the living organism. Agarwal (2018) staler that environmental awareness is performance in an integrated manner by all elements of the people. This study will help to know about the environmental awareness.

Statement of the problem

The investigator has selected the present study with the aim of knowing the level of environmental awareness among high school, and therefore, it has been entitled as “Environmental Awareness among Higher Secondary School Students in Coimbatore District”.

Definitions of the terms

Environmental Awareness

Environmental awareness is deferred as fractural information possessed by a student about environmental issues, facts and events in the content area of ecosystem. It refers to the students studying in XII standards in higher secondary schools.

Research objectives

- To study the environmental awareness among the male and female higher secondary school students of Coimbatore district.
- To find out the environmental awareness among higher secondary school of students of interest in gardening of Coimbatore district.

Hypotheses of the study

- There is no significant mean scone difference between male and female of higher school students in their environmental awareness.
- There is no significant mean score difference between interest in gardening areas of higher secondary school students in their environmental awareness.

Method of Study

The investigator used the survey method for collecting data through Google forms.

Population

The population for the study was higher secondary school students in Coimbatore district.

Tools Used

Environmental awareness questionnaire prepared and validated by investigator and the guide. The questionnaire consists of 45 items in the form of a statement. It has both positive and negative items, each a statement has two alternatives responses, namely yes and No. The investigator given the score “One” for “Yes” response to positive statements, otherwise “Zero” and the investigator given the score “ONE” for “NO” response to negative statement, otherwise “ZERO”. The maximum score for this scale is 45 and the minimum is O.

Statistical techniques used

- Mean
- Standard deviation and ‘t’ test were used to analyses the data

Testing Hypothesis

Hypothesis 1

There is no significant mean score difference between male and female of higher secondary school students in their environmental awareness.

Table -1

It showing the significant mean score difference between male and female of higher secondary school students in their environmental awareness.

Variable	Category	N	Mean	S.D.	‘t’-Value	Remarks (at 0.05 level)
Gender	Male	125	83.7	13.17	2.800	Significant
	Female	125	79.5	11.32		

The obtained value 2.800 is greater than the table value 1.96 at 0.05 level of significant it is concluded that there is a significant difference between the male and female higher secondary school students with respect to their environmental awareness.

Hypothesis 2

There is no significant mean score difference between interest in gardening higher secondary school students in their environmental awareness.

Table -1

It showing the significant mean score difference between urban and rural areas of higher secondary school students in their environmental awareness.

Variable	Description	N	Mean	S.D.	‘t’-Value	Remarks (at 0.05 level)
Interest in Gardening	Yes	178	30.67	9.26	0.765	Not Significant
	No	72	31.61	9.15		

The obtained value 0.765 is lower than the table value 1.96 at 0.05 level of significance. Therefore the null hypothesis is accepted and it is concluded that there is no significant difference between the interests in gardening wise higher secondary school students with respect to their environmental awareness.

Findings of the study

The following are the important findings of the study

1. There is a significant mean score difference between male and female of higher secondary school students in their environmental awareness.
2. There is no significant mean score difference between interest in gardening areas of higher secondary school students in their environmental awareness.

Recommendations

1. Environmental awareness enriches one’s knowledge of balance of nature.
2. A higher degree of environmental awareness is essential to save the world and preserve the eco system.
3. Research on environmental awareness associated with preservations of nature.
4. The schools may conduct seminars, debates and essay writing, drawing competitions on global warming.
5. Co-curricular and extracurricular activities should be encouraged to promote awareness on global warming.
6. Every college and school should take steps to develop knowledge in environmental awareness.
7. Everyone should take care in keeping their surroundings clean and hygiene.
8. Environmental awareness plays a significant role in the development of every individual life. Hence, the awareness about environmental should be given to the students at all level of education.

9. Parents and teachers should provide positive environment to develop environmental awareness of the children.
10. The students should be made to inculcate the habit of planning more trees and create a green revolution.

Conclusion

The students have a higher level of scientific attitude. The results and findings of the study provide important insight in the development of knowledge in the environmental awareness among secondary school students because they are future builder of the society. The continuous maintenance of quality environment for many years is called sustainable development. The environment and its resources must are not allowed to degrade. The natural resources must be used in limited way. It produced an ideal balanced ecosystem, all the components for available for the future generations. Through this research, it is known that, environmental awareness is seen among students. But every student is not taking any steps to product and conserves the environment.

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Unheard voice of The Nomadic Tribes

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Abstract:

There is an attempt to reveal the similar problems of the narratives The Branded by Laxman Gaikwad, An Outsider by Laxman Mane and Against All Odds by Kishor Kale. The communities mentioned in these narratives come from the same background of lower caste. Nomadic tribes such as Uchaly, Kaikadi and Kolhati are ill-treated by the dominant people. The women of these communities are given oppressed doubly by the patriarchy and upper class society. The people of these communities are frequently gone through torture and suffering. They faced the problem of caste and untouchability. The narrators are inspired by Dr B. R. Ambedkar and wanted to liberate their communities from the age old habits and customs. The narrators tried to express their agonies and pains of their communities. They also revealed the problems of their communities such as poverty, illiteracy, hunger, starvation, humiliation, superstitions, jatpanchayat and subordinate position of their women.

Rational of The Study: The narratives under study explain soci, economic and religious ethos of nomadic tribes. The study of these works inspire and motivates reader to establish an egalitarian and cosmopolitan human society based on the principles of equality, liberty, fraternity and justice. The narratives are the live experience of nomadic tribes and their struggle for existence.

Objectives of the Study: The Research paper aims at bringing our socoi, cultural, economical and religious perspectives of the communities. The study investigates the causes and consequences of degradation of the communities. It also attempt to surface the problems poverty, hunger, illiteracy, superstations, humiliation, jatpanchayat etc.

Methodology: The present study has uses MLA Handbook for Writers of Research Paper (Nicholls, 7 th edition) as the basis for its style manual. The entire technical format, references entries are used according to the guidelines of MLA. Analytical, descriptive and comparative methods are followed while interpreting the narratives. The proposed study does not require any practical or field work. The basic text and the reference books have been referred as primary data and secondary data.

Conclusion: The problems of poverty, illiteracy, starvation, blind faith, rituals, humiliation, subjugation of women ,jatpanchayat are the major issues raised through these narratives. The nomadic tribes such as Uchaya, Kaikadi and Kolhati are given brutal treatment by the dominant class. The communities are deprived from their fundamental rights.

Suggestion: As a human being Communities like Kaikadi, Uchalya and Kolhati are to given educational rights to come out from their age old habits. They are not stable because of their basic need of food shelter and clothes. So the communities are to be provided work to fulfill their hunger. The claim of thief on these communities is be wiped away to bring them in main stream of society. The government should look into the problem of these people and make the policies for the welfare of these underprivileged communities.The selected narratives such as The Branded by Laxman Gaikwad, An Outsider by Laxman Mane and Against All Odds by Kishor Kale are the life stories of victimized Nomadic tribes such as *Uchaly, Kaikadi* and *Kolhati*. These tribes are underestimated and brought to the inhuman level of beasts and brutes by the main stream society. The above writers are being known as Dalit writers come from the same marginal classes. They are the representative of their own communities. They are excluded from the opportunities and benefits of Indian Independence. These writers narrated their own experiences of miseries and suffering in the so called established society. The selected autobiographies are the sincere attempt to bring out the oppressed voice. The writers were the victim of the main stream society. These works are live experiences of subjugation and humiliation of the oppressed classes. They have narrated painful life of their own community through their own journey of life. These writers have come from the same backgrounds with their similar problems. They have revealed their way of life from their childhood to adult age. The socio-cultural aspects of the oppressed classes are minutely observed in the selected autobiographies. The poor economical conditions of these communities are equally brought into our notice through these works. They were victimized on various grounds dominated by so called established people. These writers are inspired their own voice against established and dominant class who made their life miserable and critical to live dignified life.

Mane, Gaikwad and Kale are inspired by the modern dramatic values such as equality, liberty, fraternity and justice in their way of life. They are also motivated and accelerated the feeling of liberation and freedom by the thoughts of Dr. B.R. Ambedkar and the prominent dalit writers. J. M. Waghmare writes about the effect of dalit writing upon the marginalized groups: "Emergence of Dalit literature has a great historical significance in India. It is generic in the sence that all other marginalized and oppressed groups of people are under its sway and sweep. It has struck a keynote awakening their consciousness for forging their identities. It has given ample inspiration and insight to the writers emerging from the tribal and nomadic communities. Writers like Laxman Mane, Laxman Gaikwad, Kishor Kale and Waharu Sonvane are a few outstanding examples."[1] These enlightened groups tried to disclose the pain, agonies and raised the voice of socio-cultural transformation of the underprivileged groups.

The similar problems are raised by these writers of their own community in the present work. The caste factor was one of the major problems in the life of these deprived classes. Poverty is one more additional problem is observed in the life of these depressed classes in their every path of life. Nobody of these communities is escaped from the clutches of poverty. Hunger is also one of the common problems narrated by these writers in their work. They struggled for their bread and butter from their childhood. These deprived communities are collapsed due to the problems of superstition, ignorance, illiteracy, addiction and debt. They had number of problem due to their own caste while getting education. *Jatpanchayat* is also played important role in these oppressed communities narrated in these autobiographies. It interfered in the common life of these oppressed classes. The inhuman treatment lodged upon these oppressed classes was the sorrow of these writers. The helpless and pathetic condition of these subjugated classes was major aspect of these writers. The narrators have observed the miserable and painful condition of oppressed classes under the influence of various factors. They have also brought into our notice the dominant and dignified life of handful of people in mainstream society. There are series of events of humiliation, exploitation and deprivation of these lower classes. The struggles of the parents of these writers are notable and full of hard work. The experiences of ghosts, sacrificing goats, fair, and festivals are commonly observed in these works. The several childhood accounts are equally narrated in these autobiographies. The struggle for education was common experiences narrated by these writers. They had gone to school without uniform and books in their dire poverty.

The concerned writers are lived with number of problems in their communities. They had come across similar problems narrated through their own autobiographies. These writers were around thirty while writing these autobiographies. These works are literary incomplete but meaningful and realistic one. They insisted that the works should be analyzed sociological point of view instead of literary one. In this regard Gaikwad himself asserted, "Let there be a sociological evaluation rather than a literary one of this work. This is my humble expectation."[2]The attempt of these narrators is same to revolts against oppression and exploitation and demands social and economic justice. The text are based on moral values and welfare of the down-trodden classes. The thematic concern is humanistic which is closely associated with the hopes for freedom of a group of people who are victims of social, economic, and cultural inequality. The narrators believe that the narratives should be analyzed from a sociological perspective focused on social and moral values. The present writing looks at reality with open eyes. It views every aspect of life objectively. The exploitation and atrocities in the deprived classes are commonly narrated. These writers are not accepted social values of an exploiting system. Any literature should be associated with the hopes for freedom of group of people who are victims of social, economical and cultural inequality. Arjun Dangale urged for sociological evaluation of Dalit literature. "Studying Dalit literature or the role of this literature from only a literary or an academic point of view fails to present a complete perspective in assessing it. Dalit literature must be assessed in the sociological framework."[3]The literary manifestation of this social awareness is essential part of Dalit literature

Language used in the present works is against the conventional norms of autobiography. These writers avoided the use of standardized Marathi words, phrases and ideas. The works are found in their own native and natural language language. There is no use of artificiality and farfetched ideas. The present dalit autobiographies have broken the rule of traditional writings. In this regard R.S.Jain rightly put "Person and personality, beginning and development, character and characterization, sophisticated mixture of fact and fiction, well-knit plot of events and eventualities of the Marathi literature were replaced by a different set of persons, characters, events, motifs and plots."[4]These works resembled rawness and rusticity of words. There is no use of technique to attract, impress or influence people. There was no well thought plan to attract sympathy and pity of others. The works seem to be honest sincere and natural. These works are lack in style and technique but thoughtful and meaningful. The use of language is simple, honest and natural. They have succeeded in their narrative technique through the simple and straight forward method. The writers are faithful in their presentation. Lxaman Mane, Laxman Gaikwad and Kishor Kale tried to write like accomplished writers.

The view of life conveyed in these autobiographies is different from the established writing. We would come into contact with new world, a new society. The languages of these narratives are distinct one of the reality. The language employed is the spoken language of these deprived and subjugated classes. The languages of these narratives are recognized an uncultured and barbaric one. The idioms and phrases are supposed uncultivated and savage. The narrators used quarter language rather than the standard one. The present autobiographies have rejected the standard language. The educated and cultured people blamed these narratives for its abusive language and rusticity. But the oppressed enlightened writer preferred native language rather the standard one. Sharan kumar rightly speaks regarding the uniqueness of mother tongue while narrating the dalit experiences: "In fact, standard language does not include all the words of Dalit dialect. Besides, the ability to voice one's experience in one's mother tongue gives greater sharpness to the expression."[5]The present autobiographies have referred the idioms and phrases which are appropriate for revealing the inner world of the oppressed classes. The distinctive use of language in the present autobiographies contributes in Marathi language and literature as well.

The present autobiographies in Marathi have been translated into English enriching not only Indian literatures in English but also the world literature of the marginal groups. The languages of these autobiographies are the languages of oppressed classes such as *Uchalya*, *Kaikadi* and *Kolhati* community. Sometime it is felt difficult to understand. But at the same time, they are contributing in the vocabulary of Marathi language. The treatments of social values are important in compare to literary values in these autobiographies.

The present autobiographies have narrated the culture of these communities. Thieving was the main business of the Pathrut community. The fair and festivals are the essential part of these communities. The marriage system of these communities and their Jatpanchayat were special of these communities. The age old method of '*Chira Utarna*' was common practice in Kolhati community. The different religious places and gods are the special attraction of these autobiographies. The present works are full of cultural experiences of these nomadic communities. There are many incidents in these autobiographies help us to understand the culture and customs of these people. It also makes us to realize the fact in these deprived nomadic communities.

Most of the Dalit autobiographies are the projection of rural and urban culture. The present works narrated the rural and urban life of these communities. These writers initially came from rural and then entered in urban life. In the result the present work recorded both the experiences of rural and urban life of these communities. Gaikwad narrates his journey of life from his childhood to a social worker. In his course of work he touched rural and urban life. The incidents and experiences presented in *An Outsider* by Mane are from rural and urban. *Against All Odds* is also perfect projection of rural and urban life. Mixture of rural and urban culture is a notable thing of these works. The half of the life of these writers is developed in rural part. They entered in the city life after thirty for different social activities. After the completion of their basic education, they involved in social work to motivate their community

The problem of hunger and poverty is commonly observed in the present autobiographies. The communities mentioned in the present work have not fulfilled their basic needs. To complete their hunger was the major barriers in their way of life. They are struggling for their bread and butter from their very beginning of life. They are deprived of their fundamental needs such as food, shelter and clothes. They never got sufficient food in their way of life. Most of the time they lived on left over food from the villages nearby. Sometimes the entire family of ten to fifteen people went without food for days together. Laxman Gaikwad roasted rats, pigs and ate to full fill his stomach. They ate leftover, stale food in the marriages for days together Dr. Lulekar rightly narrated the picture of Pathrut community: "Stealing for stomach, punishment for stealing, stealing after completion of punishment. Such was the rotation of Pathruts life." [6]There are an innumerable records of hunger observed with these deprived classes such as Pathrut, Kaikadi and Kolhati. They are always followed poverty and hunger and struggled for their existence. The picture of poverty and hunger is frequently portrayed in the present works. These writers are the real victim of poverty in their community portrayed through these memoirs .The writers were victimized under various problems raised in the present work.

The selected Dalit memoirs such as *An Outsider, The Branded* and *Against All Odds* attempts to realize the world of downtrodden and their unheard agonies and painful life in the presence of so called established Hindus. The present writers were suffered due to their lower castes. Laxman Mane, Laxman Gaikwad, Kishor Kale could not get residences even when they were educated and qualified. They were not employed in the government job simply because of their birth in lower castes. All these writers had to lie about their castes in the society. These writers faced all sort of torture and humiliation at their childhood while acquiring formal education. School children, their teachers discouraged these writers by attacking on their low castes. Teachers reserved a secluded corner of a classroom for them. Other children of the villages avoided their company. Yet these autobiographers surpassed every kind of hurdles and difficulties and became successful. Thus education of these writers solved their age old problems in their life. .

Superstition and blind belief were the part and parcel of these nomadic tribes. Already the people of these communities were far away from education. The lives of these communities were completely influenced by the traditions and customs. The writers of these communities provided innumerable account of blind beliefs and superstitions through their autobiographies. Waman Nimbalkar writes about the beliefs of these communities as "There are many incidents in the autobiography that highlight ignorance, superstitions, faith in miracles, rampant in the community"[7]

The people of lower communities believed in blind belief and miracles in their every sphere of life. Once, Gaikwad was admitted to school by his father Martand. Suddenly, the children of the village were suffered from loose motion and vomiting. The village people blamed Martand for admitting his son to school. They linked the relation between the incident of schooling of Gaikwad and loose motion of the children of the village. Actually it was blind belief of the village people. Gaikwad put an account of pass which is received from village Patil for their community. The people of Pathrut worshiped their pass as god and the blade as Laxmi in their family. Gaikwad says whenever his grandfather, grandmother and others in his family set out on a thieving mission, they bought a cock and sacrificed it to the blade, sprinkled some drops of its blood on the blade and the pass. Gaikwad noticed his father's belief: "Once my father had told me that if one sat continuously for a month between a *rui* and a berry tree to relieve oneself, and then buried a rupee between these trees located in a cemetery, one would always be left with a rupee in his purpose, whatever amount one might spend. Moreover such a person understood the language of bird."[8] Laxman Mane also narrated the belief and ritual of his own community. It was routine of their community to wander from one place to another with their caravan. Once, Laxman's father approached a new place where he was intended to settle with his family. Mane narrated the belief of his father in God by joining his palms and prayed as "Bless us with good luck." He took a pinch of vermillion from inside the basket of the idols and threw it on the ground. Kaikadi community was influenced so much with their blind belief and rituals in their every path of life. They never forgot their gods and deities. Limbale made the record of Kaikadi community in the words: "The exploitation and the predicament of Kaikadi community is based on the dominant factor such as superstitious belief and faith in god."[9]

We have also an account of beliefs in Kolhati community. Once Nana, a supposed husband of Shanta picked up the images of the gods from her little Puja placed and threw them at her, when she was menstruating. Shanta did not touch anything or anyone in the house and touching her gods was blasphemous. It was an orthodox Indian belief that women were unclean when they menstruate, and so far four days they did not touch anything in the house. Once Shanta rushed into the sitting room and saw the cobra with its raised head and hood. Kishor narrates: "The cobra is symbolic of lord Shiva, who wears one round his neck, and Monday is Shiva's day. Shanta fasted and prayed to Shiva every Monday."[10] Thus the selected autobiographies are full of blind belief and faith in god.

The communities narrated in these autobiographies are marginalized and deprived one. The selected writers are influenced by the thoughts of Dr.B.R.Ambedkar and modern values. In the result, they first time challenged the exploitation of their community through their narratives in the history of Dalit literature .These autobiographies are the records of exploitation, humiliation and harassment of these communities such as *Kaikadi, Pathrut* and *Kolhati.* Pains, sufferings, sorrows and miseries of these communities are the major aspect of these autobiographies. The writers have tried to project realistic account of their own community through these autobiographies. The languages of these autobiographies are against the traditional rule of Marathi language. These autobiographies are written in the languages of these communities. The use of language is the special feature of these works. The selected works are literary incomplete. But sociological point of view they are sound and authentic one. The problems of these communities are projected social point of view. Moral values are the basement of these autobiographies.

The writers projected the journey of their life from their childhood to adult age. The experiences of these writers were full of struggle and exploitation. They moved towards an act social work after their education and settlement in life. They contributed in their own community through their different social work. The present autobiographies raised voice against caste, untouchability, inherent occupation, women torture, poverty, hunger and so many unsolved problems of these nomadic tribes. The communities mentioned in the present autobiographies lived a life of poverty, starvation, ignorance, insults, injustice, atrocities – practices totally against humanity and democratic values. The journey of these writers is leading towards liberation of their own community. They are trying to liberate their own community from different hurdles and difficulties.

The world is narrated by these writers never became the subject of established writers earlier. The present autobiographies are written against the so called established culture and tradition. They have broken every norms of prevailed writing and established their own identity. The attempt of transformation and emancipation of these deprived classes from the domination of established age old Hindu culture attracts our attention and made us to sympathies towards these oppressed classes. Definitely, somewhere we are approaching towards the goal of these narrators behind the writing of the autobiographies. It can be realized with the statement of Gaikwad: "Hence this urge to write to awaken this bourgeois society to the sorrow and plight of my unfortunate community."[11]

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Financial Performance Analysis of Selected Companies in Information Technology Sector

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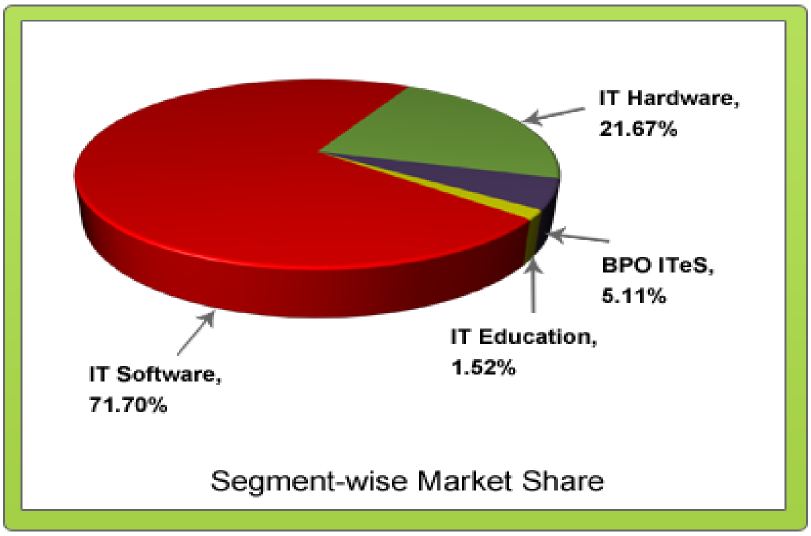
DOI-10.5281/zenodo.7052489

Abstract: The Indian Information Technology (IT) Industry has always been a key part in growth of India. India has a flourishing IT industry, and earned a well-deserved place in the global market. Accounting for 7.4 percent of the GDP in the financial year 2022, the IT-BPM has played a significant role in India's socio-economic growth, so much so that it could be the future driver of modern India. The Indian government has been very supportive of the IT sector, providing various tax exemptions and financial benefits, which enabled India to become the home of many major IT companies, like Tata Consultancy Services, Infosys, Wipro, L&T Infotech, Mindtree, and Tech Mahindra. India's IT-BPM industry employed around 4.8 million personnel in financial year 2022. The IT spending of the country in 2022 was estimated to be around 101 billion U.S. dollars. But does this growth really turning into fortune for the IT companies or not. What are the adverse effects of this competitively growing sector on the fiscal well-being of the companies? In the context with current paper focuses on analysing the financial performance of three companies of IT sector for the duration of 10 years from 2012-13 to 2021-22. It analyses the fiscal well-being of selected units on the basis of selected variables depicting various parameters like leverage, liquidity and profitability of the concerned units. The paper also examines if the financial well-being of various selected companies is comparable or a significant difference exist in between them also.
Keywords: Financial performance , Information Technology, Leverage

Introduction

The Indian Information Technology (IT) Industry has always been a key part in growth of India. India has a flourishing IT industry, and earned a well-deserved place in the global market. Accounting for 7.4 percent of the GDP in the financial year 2022, the IT-BPM has played a significant role in India's socio-economic growth, so much so that it could be the future driver of modern India. The Indian government has been very supportive of the IT sector, providing various tax exemptions and financial benefits, which enabled India to become the home of many major IT companies, like Tata Consultancy Services, Infosys, Wipro, L&T Infotech, Mindtree, and Tech Mahindra. India's IT-BPM industry employed around 4.8 million personnel in financial year 2022. The IT spending of the country in 2022 was estimated to be around 101 billion U.S. dollars. India was the leading outsourcing destination in the world, accounting for more than half of the market of the global information technology and business process management (IT & BPM) services in financial year 2021. The IT & BPM sector accounted for around 8% of India's GDP the same year. Rapid digitalization and transition to remote working helped the industry to stabilize its growth while facing the impact of the coronavirus pandemic. Anything involved with software, computers, networks, intranets, Web sites, servers, databases and telecommunications falls under the IT umbrella. IT is the technology that helps companies store, process and flow data within an organization. This sector ultimately serves other sectors like Banking, Manufacturing, Telecom, Hotels, Hospitals etc. to improve their efficiency and increase their revenues via customer satisfaction.



Source : https://www.moneyworks4me.com/investmentshastra/it-sector-analysis-and-review-of-indian-economy/

Top Players in the Indian IT Industry	
Segment	**Top Players**
IT-Software	Infosys, TCS, Wipro, HCL Tech
ITeS- BPO	Eclerx services, iSmart Global, 3i Infotech
IT-Hardware	HCL infosystem, Zenith Computers, Smartlink Networking
IT-Education	Aptech, NIIT, Educomp Solution

Current research focuses on analysing the financial performance of three companies of IT sector for the duration of 10 years from 2012-13 to 2021-22 ie Infosys, TCS and Wipro

Literature Review

N. Sathiya1 and S. Sangeetha (2021) evaluated the financial performance as well as compare the performance of selected public sector and private sector banks in India for the five years period from 2014-15 to 2018-19. To compare the financial performance by using selected parameters namely return on asset, total income, net profit, net interest income and operating profit. As per the study, total income, net interest income and operating profit of selected public sector banks are performing better than private sector banks. On the other hand, net profit and return on assets of private sector bank is higher than public sector banks. There is no significant difference between the net profits of selected public sector and private sector banks. So, the private sector banks are more constant than public sector banks.

Dr. V. Devaki (2020) conducted the study to provide an overview of the capital structure of three private telecom service provider companies. Airtel, Vodafone and Tata Teleservices were considered for the study on the basis of some selection parameters. The study provides us an insight into the financing pattern, profitability, indebtedness and the components of capital structure of the selected telecom companies. The study focused on equity share capital parameter of the companies and the data was analysed using average mean statistical tool. The result depicted that the company capital structure is important for maintaining a good solvency position. This also confirms the theory that research and development activities will increase due to company capital structure Dr. Marimuthu, KN and Dr. Syed Azhar (2019) conducted the study to evaluate the fiscal strength of Indian telecommunication companies. The observation duration for the evaluation was from year 2013-14 to year 2017-18. The study was quantifiable and utilized Altman 'Z' score tool for recognizing the fiscal stability of concerned companies. The data is secondary and was collected from yearly fiscal documents of the concerned companies forfive year period under observation. The companies which were evaluated include Bharti Airtel, Vodafone Idea and RCOM. The statistical analysis was done using Dr. Edward I. Altman's Multiple Discriminate Analysis on various financial ratios. The result of the study concluded that Bharti Airtel's financial position was better and satisfactory as compared to that of Vodafone Idea and RCOM. Also, the entry of any such new service provider can completely disrupt the telecom industry.

P Jha (2018) conducted a study that reveals that the financial information facilitate the management in setting up plans and financial strategies.

Berna (Kiran) Bulgurcu (2012) in a study proposed a multi- criteria decision-making model to measure and compare the financial performance of thirteen technology firms trading in Istanbul Stock Exchange. These firms are examined and assessed in terms of ten financial ratios which are combined to obtain a financial performance score by using Technique for Order Preference by Similarity to Ideal Solution Methods (TOPSIS). This study found out that ranking results of Market Value are not comparable to the results of TOPSIS for technology firms in Turkey. TOPSIS method is not enough to evaluate the financial performances of technology firms in Turkey.

Dr S Usha (2010) performed a study for the selected 65 software companies and the summary statistics has been analysed to find out the overall financial performance. The results of the analysis show that some of the selected ratios have shown inconsistent performance in liquidity, solvency, efficiency, coverage, share related and profitability ratios. All the selected sample companies have been considered for the analysis i.e., Size wise classification has not been done before performing the ratio analysis and this may be one of the reason for the inconsistency of some of the ratios as size may be one of the factor that influences the financial performance. Another important reason for the inconsistency may be the financial policies followed by the companies i.e. the selected companies have followed different financial policies.

Research Methodology

The present paper studies the IT Companies (TCS, Infosys and Wipro) on the basis of three diverse fiscal parameters leverage, liquidity and profitability of the selected companies.

Objective of the Study

1) Evaluating financial performance of chosen IT companies.
2) Correlating leverage position of chosen IT companies.
3) Correlating profitability performance of chosen IT companies.
4) Correlating liquidity of chosen IT companies.
5) Testing any significant difference is present in concerned variables or not.

Sample

Current paper studies the fiscal performance of three major players of IT sector of India. The companies are chosen on the basis of market capitalisation. The selected companies are Tata Consultancy Services (TCS), Infosys, Wipro.

List of Top 5 IT companies in India showing their market capitalization.

S.NO	COMPANY	MARKET CAPITALISATION (RS IN CRORES)
1	TCS	14,09,671
2	INFOSYS	7,12,779
3	WIPRO	3,48,343
4	HCL TECHNOLOGIES	3,46,114
5	TECH MAHINDRA	1,34,268

Source: http://www.electronicsandyou.com/blog/top-10-it-companies-in-india-by-market-cap.html

Hypothesis

H_{01}: There is no significant difference in the profitability of chosen companies.

H_{02} :There is no significant difference in the leverage of chosen companies.

H_{03}: There is no significant difference in the liquidity of chosen companies

Data Analysis & Interpretation

The fiscal performance of chosen IT companies is analyzed using various fiscal ratios. The statistical tools which have been used for data interpretation are averages (mean), standard deviation, minimum and maximum. The study is also conducted to evaluate whether the fiscal performance of chosen IT companies in terms of ratios is similar or have a significant difference. For testing the significant difference in financial performance ONE WAY ANOVA TEST is used. The analytical results are tested at 95% level of confidence (5% level of significance). When the evaluated value of F Ratio comes higher than the critical value at the 5% level of significance then the null hypothesis will be rejected and if the F Ratio value comes less than the critical value corresponding null hypothesis will be accepted.

Limitations

The analysis is based on secondary data collected from various sources; therefore, the authenticity will be completely subjected to the available data. The sample size is also very limited. The time period considered for study is also limited to ten years.

DataAnalysis

Liquidity Ratio Analysis

A current ratio is a type of financial ratio used to determine a company’s ability to pay its short-term debt obligations. It compares a firm's current assets to its current liabilities, and is expressed as follows

Current ratio = Current Assets/ Current Liabilities

The current ratio is an indication of a firm's liquidity.

The metric helps determine if a company can use its current assets to cover its current liabilities. This analysis is of importance to all those interested in knowing the financial condition of the organization.

Table 1.1

Company	March 22	March 21	March 20	March 19	March 18	March 17	March 16	March 15	March 14	March 13
TCS	1.85	2.53	2.88	3.31	4.15	4.56	5.55	4.06	1.511	1.19
Infosys	1.99	2.545	2.61	2.83	3.54	3.83	3.90	4.14	4.71	5.61
Wipro	2.01	1.78	2.40	2.67	2.79	2.35	2.32	2.66	2.60	2.12

Source: https://www.macrotrends.net/stocks

If the current ratio is higher than the idle, then the company is in financially sound condition and can easily pay its liabilities and if the ratios are lower than it will not be a good idea to invest in that company. Idle current ratio is 2:1. Therefore from the above table we can say currently Wipro is the only company with good current ratio and is capable of covering its current liabilities with current assets. Upto 2021 even TCS and Infosys were showing good current financial positions.

Table 1.2

Measure	TCS	Infosys	Wipro
Mean	3.16	3.57	2.37
Standard Deviation	1.425151	1.104	0.32444
High	5.55	5.61	2.79
Low	1.19	1.99	1.78

We can see from the above table that the average current ratio for all the selected companies had been significant over a period of 10 years. Wipro is showing least standard deviation in its current ratio and is not maintaining very high current ratio as well.

Quick Ratio Analysis

The quick ratio is an indicator of a company's short-term liquidity position and measures a company's ability to meet its short-term obligations with its most liquid assets. Since it indicates the company's ability to instantly use its near-cash assets (assets that can be converted quickly to cash) to pay down its current liabilities, it is also called the acid test ratio.

Table 1.3

Company	March 22	March 21	March 20	March 19	March 18	March 17	March 16	March 15	March 14	March 13
TCS	0.29	0.34	0.60	0.39	0.45	0.53	0.52	0.62	0.46	0.45
Infosys	2.10	2.74	2.88	3.0	3.78	4.05	3.98	3.12	3.83	4.82
Wipro	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36

Source: https://www.macrotrends.net/stocks

If the quick ratio is higher than the idle, then the company is in financially sound short term liquidity position and if the ratios are lower than it will not be a good idea to invest in that company. Idle quick ratio is 1:1. Therefore form above table we can say currently Wipro is the company with highest liquidity ratio and can therefore be considered with a good short term liquidity position. Even the short term liquidity position of Infosys is very good.

Table 1.4

Measure	TCS	Infosys	Wipro
Mean	0.47	3.43	2.36
Standard Deviation	0.10638	0.7979	0.2135
High	0.62	4.82	2.65
Low	0.29	2.10	2.01

We can see from the above table that the average quick ratio for all Infosys and Wipro is very good but that of TCS cannot be considered good as it is less than the idle ratio. TCS is showing least standard deviation in its quick ratio.

Leverage (Long-Term Solvency) Analysis

Long term solvency means the firm's ability to meet its liabilities in the long run. Long term solvency ratios help to determine the ability of the business to repay its debts in the long run. These ratios are used to analyze whether the company will be able to get more finance in future or not.

Debt- Equity ratio Analysis

The debt-to-equity ratio, also referred to as debt-equity ratio (D/E ratio), is a metric used to evaluate a company's financial leverage by comparing total debt to total shareholder's equity. In other words, it measures how much debt and equity a company uses to finance its operations

Table 1.5

Company	March 22	March 21	March 20	March 19	March 18	March 17	March 16	March 15	March 14	March 13
TCS	0.37	0.46	1.17	0.96	1.12	1.41	1.53	1.62	1.66	2.71
Infosys	0.56	0.41	0.41	0.30	0.23	0.21	0.22	0.21	0.20	0.17
Wipro	0.09	0.01	0.01	0.05	0.09	0.04	0.04	0.03	0.03	0.00

Source: https://www.macrotrends.net/stocks

Debt-equity (D/E) ratio will depend on the nature of the business and its industry. Generally speaking, a D/E ratio below 1 would be seen as relatively safe, whereas values of 2 or higher might be considered risky. Therefore, from the above table we can say currently Wipro is the company with lowest debt and is mainly financed through equity and can therefore be considered with a good long term solvency position since it has to pay least to the creditors in comparison to the other two selected companies. But we can also see that other two companies are also working on Equity and less dependent on debt which is an indication of good long term solvency position.

Table 1.6

Measure	TCS	Infosys	Wipro
Mean	1.30	0.29	0.04
Standard Deviation	0.668372	0.127174	0.031073
High	2.71	0.56	0.09
Low	0.37	0.17	0.00

We can see from the above table that the average debt equity ratio for Wipro is very low but that of TCS is very high comparatively. Wipro is maintaining a debt equity ratio as low as 0 with a standard deviation of just 0.03 which is a clear indication of very good long term solvency position of the company in comparison to other selected samples.

Profitability Analysis

To continue growing in an extremely dynamic, competitive, and vibrant market profitability analysis is a must. Profitability analysis helps businesses identify growth opportunities, fast/slow-moving stock items, market trends, etc, ultimately helping decision-makers see a more concrete picture of the company as a whole.

Net Profit Margin Analysis

The net profit margin is calculated as a percentage of net profit to sales. It is a metric used to evaluate a company's profitability which is required for long term sustenance in the market.

Net profit margin = (Net profit/ sales)*100

Table 1.7 (All figure as %)

Company	March 22	March 21	March 20	March 19	March 18	March 17	March 16	March 15	March 14	March 13
TCS	23.81	22.77	25.33	24.40	25.92	25.51	26.87	26.17	28.56	26.40
Infosys	20.43	21.00	19.66	20.11	26.08	23.30	23.51	25.71	22.99	24.79
Wipro	15.44	17.43	15.91	15.35	14.70	15.42	17.36	18.49	17.95	15.94

Source: https://www.macrotrends.net/stocks

From the above table we can say TCS is making highest net profit currently. Wipro is the company with least profit margins. But all the 3 selected companies are making profit over the years.

Table 1.8

Measure	TCS	Infosys	Wipro
Mean	25.57	22.76	16.40
Standard Deviation	1.638734	2.354942	1.294402
High	28.56	26.08	18.49
Low	22.77	19.66	14.70

We can see from the above table that selected companies have been able to maintain high net profit over the years. The average net profit margin of Wipro is the least in comparison to TCS and Infosys. To continue growing in an extremely dynamic, competitive, and vibrant market WIPRO can identify new growth opportunities to make more profits.

Dividend Per Share Analysis

Dividend per share (DPS) is the sum of declared dividends issued by a company for every ordinary share outstanding. The figure is calculated by dividing the total dividends paid out by a business, including interim dividends, over a period of time, usually a year, by the number of outstanding ordinary shares issued. The net profit margin is calculated as a percentage of net profit to sales. It is a metric used to evaluate a company's profitability which is required for long term sustenance in the market.

Dividend Per Share (DPS) = (D - SD)/S

Where

D = sum of dividend over a period

SD = Special Dividends

S= number of outstanding shares

Table 1.9 (All figures in RS)

Company	March 22	March 21	March 20	March 19	March 18	March 17	March 16	March 15	March 14	March 13
TCS	43.00	38.00	73.00	30.00	50.00	47.00	43.50	79.00	32.00	22.00
Infosys	31.00	27.00	17.50	21.50	43.50	5.75	24.25	59.50	63.00	42.00
Wipro	6.00	1.00	1.00	1.00	1.00	2.00	6.00	12.00	8.00	7.00

Source: https://www.macrotrends.net/stocks

From the above table we can say TCS has highest dividend per outstanding share currently. Wipro is the company with least current DPS.

Table 1.10

Measure	TCS	Infosys	Wipro
Mean	45.75	33.50	4.50
Standard Deviation	18.07892	18.32613	3.865805
High	79.00	63.00	12.00
Low	22.00	5.75	1.00

We can see from the above table that selected 2 companies ie TCS and Infosys have been able to maintain high DPS. The average DPS of Infosys and TCS is very high whereas that of Wipro is comparatively low. The lowest DPS is seen in Wipro which is as low as Rs 1.00 whereas the lowest DPS of TCS is RS 22.00 and going as high as RS 45.75 over the years.

Hypothesis Testing

Table 1.11: Results of one way ANOVA test

ANALYSIS	F value (At 95% level of significance)
LIQUIDITY RATIO	
Current Ratio	3.31864
Quick Ratio	104.3788
LEVERAGE (LONG-TERM SOLVENCY)	
Debt – Equity Ratio	28.83126
PROFITABILITY RATIO	
Net profit margin	66.898
Dividend per share	19.8677

The critical value of F-Ratio at 95% level of significance is 2.866. For liquidity, Leverage and Profitability, all chosen variables has F ratio value higher as compared to critical value, therefore null hypothesis will be rejected for all these and a conclusion can be given that there is a significant difference in the fiscal performance of chosen companies in terms of Liquidity, Leverage and profitability.

Conclusion

The current study on chosen IT companies which is done for a duration of ten years (from 2012-13 to 2021-22) reveals that there is significant difference in the financial performance of the companies. Wipro has performed well across all financial variables except for profitability. The company has performed exceptionally well in short term liquidity and leverage as compared to the other two selected companies. Infosys has been able to maintain a decent quick ratio in comparison to TCS therefore, is in a better position to repay debts. Wipro has good leverage ratio and is working more on equity to give a strong long term solvency position to the company. In terms of Profitability variables, TCS and Infosys have performed extremely well signifying that they were able to generate profit over the years. Comparatively Wipro is not doing as good as the other two samples.

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Implication of Plato's Allegory of the Cave in the present day Modern Political Order

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DOI- 10.5281/zenodo.7052501

Abstract- Plato the great philosopher of all the times has given us an incredible Allegory. This Allegory is named by him as the Allegory of the cave because he uses the backdrop of the cave to explain, how the reality is different from that what it appears to be. He demonstrates how intellectual enlightenment plays a great role in getting liberated and also helping others liberate from the bondages of ignorance along with the physical, mental and political imprisonment in which they were living happily. This Allegory of the cave primarily has epistemological and metaphysical nature however the researcher in this study has made an attempt of understanding the allegory and interpret it in political sense by applying it to the present day political order. This paper also tries to analyze the important role of education in good governance and the role of Plato's philosopher that is the politicians in the present day in the process of liberating the ignorant masses with the aid of higher education from the social and political shackles.
Key Words - Allegory, Cave, Education, Escape, Governance, Politician, Prisoner, Shackles.

Rationale of the Study

Plato in his Allegory of the Cave has explained the importance of education for the purpose of good governance. He said that the philosopher king must be well educated and only then he can enlighten the ignorant mases by establishing an ideal state with a perfect frame work of good governance. In the present day modern democratic political order, each and every profession needs some basic educational qualification however the politicians who become the legislatives or the executives do not need any specific higher educational qualification. Plato insists that in democracy the ignorant mases elect the uneducated leaders and this leads to their final ruin and thus democracy is not a suitable form of Government. Researcher in this research paper has tried to analyze Plato's theory of Allegory of the Cave and has tried to establish the nexus between importance of educated politicians for good governance.

Objective of the Study

The following are the objectives of the research-

1. To analyze Plato's theory of The Allegory of the Caves.
2. To analyze the significance of education explained by Plato in the allegory.
3. To construct a relation between education and good governance.
4. To prove that education is importance for good governance.
5. To establish that the present day politicians should be educated just like Plato's philosopher king.

Hypothesis

Education is an important qualification for the politicians in our present day modern political order.

Methodology

For the purpose of analyzing Implication of Plato's Allegory of the Cave in the present day Modern Political Order, the researcher had adopted the descriptive and analytical research methodologies. The researcher extensively collected secondary data and has analyzed the same in order to prove the hypothesis and to reach to the conclusion and as well as be able to give the appropriate suggestions.

Introduction

The history of political science reveals clearly that many political thinkers have contributed to it extensively. Amongst all the political philosophers Plato is probably the greatest philosopher of all the ages. Plato is the Athenian philosopher who initiated the Academy for higher learning and for spreading the importance of education. He himself was the student and a good friend of the greatest political philosopher, Socrates. Socrates has been credited for using dialogue as a method of discovering the truth. He in spite of being a great philosopher himself, did not write any of his own theories. All that we know about Socrates' philosophy is through Plato's work. Plato wrote down Socrates' philosophies in the dialogue form after he was sentenced to death by the Athenian democrats. Therefore, we can clearly see strong reflection of Socrates' thoughts in Plato's work. The Allegory of the Cave also which is Plato's one of the several other great philosophical works is attributed to Socrates. Socrates had narrated this Allegory to Plato's brother Glaucon and Plato had written it down in form of a dialogue between the two. We can find the Allegory of the Cave in chapter VII of Plato's classic work The Republic, written around B.C.E. 375. The republic is considered as Plato's best work. It is the most important and apparently the 1st book on government, state and many more other important aspects dealing with political science. Plato in The Republic elaborates on how, in order to explain the true notion of justice a group decides to create an ideal imaginary city state. He insisted to build the ideal city state on three pillars, such as of justice, virtue and happiness. The city state was to be governed by the philosopher king, who was a well-educated person coming from an aristocratic family. The people living in the just city state were classified by Plato into three different categories such as firstly the Ruler who had the virtue of knowledge by which he could understand what is right and wrong. Secondly the Guardians who had the virtue of courage and by using it they could protect the city and take care of the people. Finally, the producers whom he calls as the artisans who had the virtue of appetite and so by using such a virtue they would provide goods and service for the people in the city state.

Plato has divided The Republic in a series of ten books. Each book covers a different aspect of his philosophy. The book VII covers The Allegory of the Cave in which Socrates explains the importance of education as the means by which the human soul is directed away from the basic human desires. Plato through the dialogues of Socrates further elaborately explains and proves that education is the most important ingredient required for a politically perfect state. He explains how good quality education can create great leaders in the form of the philosopher king. He further demonstrates how intellectual enlightenment plays a great role in getting liberated and also helping others liberate from the bondages of ignorance along with the physical, mental and political imprisonment in which they were living happily. He explains how educated philosopher king can establish an ideal city state by good governance. In this paper the researcher intends to understand and analyze Plato's Allegory of the Cave and interpret its underpinnings to the present day political order in India.

'The Allegory of the Cave' - As it is

In the Allegory of the Cave, Plato segregates the people who mistakes sensory knowledge for the truth and the people who really do see the truth. For explaining this Plato asked us to Imagine a cave, which had three prisoners in it since their birth. They had never seen outside of the cave so did not know what was outside the cave. The prisoners were tied in one place to some rocks to prevent them from escaping from the cave, in order to prevent them from looking at anything but the stonewall in front of them, their arms and legs were shackled and their heads were also tied. Behind the prisoners was a fire, and in between the prisoners and the fire was a raised walkway. People outside the cave carrying things such as animals, plants, food and stones would walk along this walkway Now the prisoners cannot look at anything behind or to the sides because they were shackled and constantly had to look at the wall in front of them. When people walk along the walkway, the prisoners can see only the shadows cast on to the wall of the objects which the people were carrying on their heads. As the prisoners had never seen the real objects ever before, they would believe that the shadows of objects were real. Plato tells us that the prisoners would begin with a 'game' of guessing as to which shadow would appear next. The prisoners who correctly guessed, would be praised by the others. They would call him as clever and best amongst them and say that he was a master of the nature who knew everything. Further Plato tells us what happens when one of the prisoners manages to leave the cave by escaping from their bindings. According to Plato he is shocked to see the real world. He is puzzled on discovering what is outside the cave and does not believe that whatever he has seen and witnessed can be real. However, with the passing time he becomes used to his new surroundings, he realizes that his former view of reality which he had made inside the cave on the basis of the shadows cast on the wall, was all wrong. He gradually begins to understand his new world, and realizes that the Sun is the only major source of the life and begins his intellectual journey where he discovers the real nature. He tries to understand its beauty and meaning. He realizes that his former life was not at all good in comparison to the present life where he has gained knowledge about the reality of life. He also understands that the guessing game which he played when he was in cave was useless.

This enlightenment urges him to return to the cave and to inform the other prisoners of his new findings and the knowledge of reality which he has gained from the free and shackle free nature outside the cave. However, the prisoners inside the cave were absolutely ignorant about the real world and therefore they did not believe him and instead of grateful they on the contrary threatened to kill him if he tries to set them free.

Interpretation of the Plato's Allegory of the Cave in the context of the present day world

Plato in the allegory of the cave tells us that most of the time, most of us live in ignorance. He believes that the worst part of this situation, is that we do not even know that we are ignorant. Plato tells us to correlate our ordinary life, to the life of the prisoners in the cave. He further tells us that we are the prisoners, who live in the world of assumptions and false believes. We rely only on our senses to tell us about the reality, we neither take efforts to understand the real situation nor do we try to gain true knowledge. We blindly assume that only what our five senses tell us, is real.

Further it can be said that just like the prisoners, we all do the mistake of believing the ordinary world based only on our experience gained from our sense to be real. This leads to our acceptance of things at face value which is most of the times full of error. What Plato seems to be saying is that, even if the cave appears to be very enticing to the chained prisoners, however the truth is that it is not in their own interest. He tries to explain further that if the prisoner tries to stay in the cave, he will always be in a comfort zone and have lots of company of such people who always agree with him on the interpretations made by him about the shadows. As leaving the comfort zone is not an easy task and thus leaving the cave becomes equally difficult. However even if one of the prisoners' escapes and tries to go outside the cave, he first feels disoriented but with patience and perseverance, he gets his reward of seeing things as they really are and similarly we are just like the prisoners unaware of what is happening outside the prison premises and thus would feel equally disoriented when we try to step out of our comfort zone and think big. From the allegory of the cave we can say that for Plato the only one way to know reality is, relying on our reason rather than on our senses or our biased feelings because he says that reason is something that will never deceive us. Rather, it actually enables us to distinguish all that what is real from what is unreal. The philosophy behind Plato's Cave Allegory is relevant even in the present day, modern world in different capacities and circumstances. The allegory shows us how a common person like us who is brought up under a different narrow worldview, who is accustomed to a specific pattern of thinking and a specific way of life will find it difficult to accept another highly contrasting outlook and a different life. Such way of thinking and his worldview will make him rigid and he will resist and even reject the better possibility of change and progress. We are chained by our own faiths, beliefs, way of thinking, ideologies, influences, traditions, customs, habit, and so on. These aspects not only impact individuals but also extend to institutions, politicians, administrative and the Government at large.

Conclusion and Suggestions

Plato has presented one of his best philosophies in his book The Republic. The seventh book of the Republic by Plato gives us the allegory of the cave and discusses the extent to which people should be educated and enlightened in society. Plato for the purpose of explaining this ideology has suggested that the king should carry out the role of enlightening the people in society and further suggested that the king should live a life of a philosophic and avoid committing any evil in the society. Plato utilized the idea of the philosopher king to explain his ideas of good governance backed by putting emphasis on education and justice. Plato in the allegory of the cave also explained about the analogy of the sun and the line. In the analogy of the cave he explained the living conditions of prisoners in the cave and through this he stated that the people should always avoid evil and be focused at doing good things in society. For this to be a reality the philosopher-king should be somebody who is a learned being having the interest of the majority at heart. The allegory of the cave in this regard illustrates the important role played by education on the human soul and on how crucial it is for a happy and content human life.

After analyzing the analogy of the cave Plato came up with his form of government. Plato stated that the best individuals in society should only always be allowed to rule for all the people. He believed that only well qualified persons should be eligible for occupying influential positions in the public and private sectors. Plato stated that the aristocracy is the best form of the government and whereas the democracy is the worst form of the government because it is the government by all and does not give the best individuals in society a chance to exercise their power. For Plato Democracy is like the tyranny because the majority people might push the leaders to implement such public policies which are against the interest of the masses. Plato in the allegory of the cave compared the Individuals who receive the best form of education to the Sun. Only because of the availability of the sun the prisoner from the cave saw real objects. Similarly, society and the people at large can achieve their goals, objectives and develop themselves by enhancing their qualities if the best and the most educated are allowed to rule. According to Plato, if this is achieved then the justice would also be achieved for both the individual and the city.

Therefore, resting on Plato's ideology in the allegory of the cave we can suggest that the leaders and the politicians must be well educated and learned. They must be sensitive to the sufferings of the common people. They must always try to be responsive to the demands of the people at large. However, while doing so the leaders must apply their own knowledge, which they have gained from good quality higher education in order to analyze what is the best and what is the worst for the wellbeing of the society at large. The leaders should be the persons who have adequate education required for carrying out the good governance. Thus it can be finally concluded by saying that in the present day political system there should be the criteria of higher education as the required qualification for becoming the leader or the politician.

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Renewable Energy and Make in India Opportunities: A Brief Study

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Abstract

'Energy' means life and the 21st century is completely based on it due to drastic and sustainable need of the developments in every sphere of human beings. Energy means development and development leads to prosperous and prosperous leads to the least conflicts or violents due to huge economic disparity among the countries in the world. So the need of the hour demand for energy and associated services to meet social and economic development and improve human welfare and health is increasing. According to IMF World conomic Outlook-2021, India has become the third largest economy of the world after China and America on the basis of purchasing power parity with 10.207 trillion dollar and 6th in the world on the basis of nominal GDP. It is expected that, India to be the most populated country as well as the largest economy in the world by 2050.That's why the demand for energy is going to increase substantially even if we manage to maintain the present trend in per capita energy need for without compromising its growth. Energy can play the most important role in the odern world. In this connection, 'The Make in India' Program is going to further enhance the energy need of the country though it aims to attain 'Zero Defect and Zero Effect'. To attain Zero Effect we need to control CO_2 emission by increasing dependence on C*lean* and *Green Technology*.This article mainly highlights how the renewable energy to fulfill the growing needs of the world's second largest population through 'Make in India Programmes' and create many opportunities in the country.

Keywords :Sustainable Development, IMF World Economic Outlook, Trillion Dollar, Zero Defect, Zero Effe Emission, Clean and Green Technology, Make in India.

Introduction:

'Energy' means life and the 21st century is completely based on it due to drastic and sustainable need of the developments in every sphere of human beings. So the need of the hour demand for energy associated services, to meet social and economic development and improve welfare and health, is increasing.[1] All societies require energy services to meet basic human needs like lighting, cooking, space comfort, mobility and communication and to serve productive processes. Since approximately 1850, global use of fossil fuels (coal, oil and gas) has increased to dominate energy supply to a rapid growth in carbon dioxide (Co_2) emissions.[2]

Greenhouse gas (GHG) emissions resulting from the provision of energy services have contributed significantly to the historic increase in atmospheric GHG concentrations. The IPCC Fourth Assessment Report concluded that "Most of the observed increase in global average temperature since the mid 20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations. Recent data confirm that consumption of fossil fuels accounts for the major global anthropogenic GHG emissions. Emissions continue to grow and CO_2 concentrations had increased to over 390 PPM, or 39% above preindustrial levels, by the end of 2010. There are many options for lowering GHG emissions from the energy system while still satisfying the global demand for energy services.[3] Regarding this issue, Renewable Energy (RE) is the best option to solve this problem and to support the rising demand of people in the 21st century.[4] Renewable Energy (RE) comprises a heterogeneous class of technologies that are able to satisfy multiple energy service needs of human beings. Some RE technologies can be deployed at the point of use (decentralized) in rural and urban environments whereas others are primarily deployed within large (centralized) energy networks. Though a growing number of RE technologies are technically mature and are being deployed at significant scale, others are in an earlier phase of technical maturity and commercial deployment.[5] On the other hand, the global economy's need for energy continues to rise, requiring more energy than is ultimately available from nonrenewable resources. Rising demand (60 percent from 2005 to 2015) is likely to change the current distribution of sources on which the world relies to meet its energy needs (left). As the fossil free energy scenario prediction (right) suggests, it would be possible to tap renewable sources to meet the world's entire energy needs by the end of the twenty-first century. For example, it is estimated that more than 50 Global South countries could produce as much energy from the biomass residues generated by sugar production as they presently obtain from oil; that less than 5 percent of the globe's small-scale hydropower has been exploited; and that land-based wind turbines could provide 20 million megawatt-hours of electricity each year – twice as much as the world consumed in 1987.[6]No doubt, RE from replaceable sources also has the advantage of doing relatively little damage to the environment. For these reasons, the presently little-used non-hydrocarbon sources of energy are expected to expand from 2005 to 2030 far more rapidly than the rates of hydrocarbons (oil, gas, and coal); solar by about 100 percent, wind by 250 percent, nuclear by 40 percent, and biomass by about 250 percent. Enthusiasm has been particularly strong for building “a hydrogen fuel economy” based on hydrogen use in fuel cells as a substitute for the “carbon economy”, because hydrogen provides opportunities to reduce dependence on foreign oil imports and rely on pollution-free hydrogen power to eliminate emissions that cause air quality problems. Nevertheless, despite the potential, fossil fuels’ share of world energy will likely remain very dominant, with RE sources probably accounting for only about 8 percent of the global energy supply by 2020.[7] RE is useful energy that is collected from renewable resources, which are naturally replenished on a human timescale, including carbon neutral sources like sunlight, wind, rain, tides, waves and geothermal heat. This type of energy source stands in contrast to fossil fuels, which are being used far more quickly than they are being replenished. Although most RE is sustainable energy, some is not, for example some biomass is unsustainable.[8] Based on REN21s 2017 report, renewables contributed 19.3% to humans’ global energy consumption and 24.5% to their generation of electricity in 2015 and 2016, respectively. This energy consumption is divided as 8.9% coming from traditional biomass, 4.2% as heat energy (modern biomass, geothermal and solar heat), 3.9% from hydroelectricity and the remaining 2.2% is electricity from wind, solar, geothermal and other forms of biomass. In 2017, worldwide investments in RE amounted to US$279.8 billion with China accounting for 45% of the global investments, and the United States and Europe both around 15%. Globally there were an estimated 10.5 million jobs associated with the RE industries, with solar photovoltaics being the largest renewable employer. RE systems are rapidly becoming more efficient and cheaper and their share of total energy consumption is increasing. As of 2019, more than two-thirds of worldwide newly installed electricity capacity was renewable. Growth in consumption of coal and oil could end by 2020 due to increased uptake of renewables and natural gas. As of 2020, in most countries, photovoltaic solar and onshore wind are the cheapest forms of building new electricity-generating plants.

But according to Data, at the national level, at least 30 nations around the world already have RE contributing more than 20 percent of their energy supply. National renewable energy markets are projected to continue to grow strongly in the coming decade and beyond. At least two countries, Iceland and Norway, generate all their electricity using RE already, and many other countries have the set of goal to reach 100% renewable energy in the future. At least 47 nations around the world already have over 50 percent of electricity from renewable resources. RE resources exist over wide geographical areas, in contrast to fossil fuels, which are concentrated in a limited number of countries. Rapid deployment of RE and energy efficiency technologies is resulting in significant energy security, climate change mitigation, and economic benefits. In international public opinion surveys there is strong support for promoting renewable sources such as solar power and wind power.Similarly, in the recent years many RE projects are large-scale, renewable technologies are also suited to rural and remote areas and developing countries, where energy is often crucial in human development. As most of RE technologies provide electricity, RE deployment is often applied in conjunction with further electrification, which has several benefits; electricity can be converted to heat, can be converted into mechanical energy with high efficiency, and is clean at the point of consumption. In addition, electrification with RE is more efficient and therefore leads to significant reductions in primary energy requirements.[9]As we know, energy is one of the cornerstones of any burgeoning industrial power but, for developing countries like India, it is a matter of critical choices. Although India is one of the lowest per capita greenhouse gas contributor globally, its improving living standards, rising aspirational young population and the modernization of its industrial sectors portend that the country’s energy needs will grow at around three times the current global rate. Hence, the International Energy Authority has attributed one-quarter of the global growth in energy demand estimated upto 2040 to India. On the other hand, during recent years, India has been at the forefront of adopting innovative solutions in RE generation to support the rising demand. Projects involving biomass, hydropower, geothermal, wind and solar energy generation are being developed. India’s strategic plan is to integrate these technologies into the existing grid allowing for a flexible and secure energy supply that progressively substitutes for the fuel-stock use of coal, oil and solid biomass like wood, which totals almost 80% currently, to a 60% from RE source by 2030. The advent and policy thrust to renewable energy systems will require a paradigm shift in the management of energy transition and absorption. Specialized manpower for the purpose will be required to navigate this transition. Energy engineers will be required to manage what will be a new era in sustainable energy production and delivery. RE presents a huge window of opportunities for employment growth within the sector[10] particularly in the biggest democratic country like India in the 21st century. According to IMF World Economic Outlook-2021, India has become the third largest economy of the world after China and America on the basis o the purchasing power parity with 10.207 trillion dollar and sixth in the world on the basis of nominal GDP. It is expected that, India to be the most populated country as well s the largest economy in the world by 2050. But the most important fact is that, how the RE to fulfill the growing demands of the world's second largest population through 'Make in India Programmes' and create many opportunities in the country.

Objectives of the Study:

The present paper tries to address the following objectives.

(i) To know the current position and future prospects of the Renewable Energy in India.
(ii) To know India's targets 70% of our energy coming from renewable sources by 2050.
(iii) To know how make in India opportunities impact in Renewable Energy Sector.
(iv) To depict some constructive suggestions for the betterment of India and world.

Research Methodology:

The research work aims at the careful study of the subject undertaken in order to discover new fact or information about it. As no single method can be solely relied upon for acquiring a meaningful insight of this research article, therefore, a combination of Historical and Analytical method is applied in the study. For the historical and analytical method of study, the data has been collected from secondary sources as per the guidance. The secondary sources are –

(i) Journals
(ii) Articles
(iii) Newspapers
(iv) Official Documents
(v) Reports
(vi) Books
(vii) Platform Speeches

Sources Of Renewable Energy :

Everything available in our environment which can be used to satisfy our needs provided. It is technologically accessible economically feasible and culturally acceptable can be termed as 'Resource'. The process of transformation of things available in our environment involves an interactive relationship between nature, technology and institutions. Human beings interact with nature through technology and create institutions to accelerate their economic development. Resources are a function of human activities. As human beings themselves are essential components of resoruces. These resources can be classified into the different ways but on the basis of exhaustibility, there are two kinds like, Renewable and Non-renewable.The most energy sources for doing work are non-renewable energy sources. These are, Petroleum, Hydrocarbon Gas Liquids, Natural Gas, Coal and Nuclear Energy. These energy sources are called non-renewable because their supplies are limited to the amounts that we can mine or extract from the earth. Coal, Natural gas, and petroleum formed over thousands of years from the buried remains of ancient sea plants and animals that lived millions of years ago. That is why we also call those energy sources fossil fuels.[11] Similarly, the major sources or types of RE in the modern days are Solar Energy from the sun, Geothermal Energy from heat inside the earth, Wind Energy, Biomass from plants and Hydropower from flowing water. They are called RE sources because they are naturally replenished. Day after day, the sun shines, plants grow, wind blows and rivers flow.[12]

Make In India Opportunities In Renewable Energy Sector:

According to IMF World Economic Outlook-2021, India has become the third largest economy of the world after China and America on the basis of purchasing power parity and sixth in the world on the basis of nominal GDP and expected to continue its rapid-stride in urbanization and economic developments during next two to three decades.[13] India is world's 3rd largest consumer of electricity and world's 3rd largest renewable energy producer with 38% (136 GW out of 373 GW) of total installed energy capacity in 2020 from renewable sources. Ernst & Young's (EY) 2021 Renewable Energy Country Attractiveness Index (RECAI) ranked India 3rd behind USA and China. In 2016 Paris Agreement's Intended Nationally Determined Contributions targets, India made commitment of producing 40% of its total electricity from non-fossil fuel sources by 2030. In 2018, India's Central Electricity Authority set a target of producing 57% of the total electricity from non-fossil fuels sources by 2027. India has also set a target of producing 175 GW by 2022 and 450 GW by 2030 from RE. As of September 2020, 89.22 GW solar energy is already operational, projects of 48.21 GW are at various stages of bidding.

In 2020, 3 of the world's top 5 largest solar parks were in India including world's largst 2255 MW Bhadla Solar Park in Rajasthan and world's second-largest Solar Park of 2000 MW Pavgada Solar Park Tumkur in Karnataka and 100 MW Kurnool in Andhra Pradesh. Similarly, Wind Power in India has a strong manufacturing base with 20 manufacturers of 53 different wind turbine models of international quality up to 3 MW in size with exports to Europe, the United States and other countries. Solar, Wind and run-of-the-river hydroelectricity are environment friendly cheaper power sources they are sued as "must-run" sources in India to cater for the base load, and the polluting and foreign-import dependent coal-fired power is increasingly being moved from the “must-run base load” power generation to the load following power generation (mid-priced and mid-merit on-demand need-based intermittently-produced electricity) to meet the peaking demand only.

On the other hand, India initiative the International Solar Alliance (ISA) is now an alliance of 121 countries. India was world’s first country to set up a ministry of non-conventional energy resources (Ministry of New and Renewable Energy (MNRE) in early 1980s). Solar Energy Corporation of India (SECI), a public sector undertaking, is responsible for the development of solar energy industry in India. Hydroelectricity is administered separately by the Ministry of power and not included in MNRE.[14]

India ranks the second position in terms of population that accounts to 17% of the world’s overall population (more than 138 cr. in 2021). India is globally ranked 3rd in consumption of energy. In terms of installed capacity and investment in RE, the EY’s RE Country Attractiveness Index (RECAI) ranking in July 2021. USA, China, and India scores like 70.71, 68.73 and 66.22 respectively.

Table-1

Technology	India	USA	China
Solar PV	62.7 (1)	57.6	60.3
Solar CSP Power Plants	09.2 (4)	46.2	54.3
Hydroelectricity	46.4 (3)	57.6	60.3
Biofuels	47.4 (10)	45.3	52.8
Onshore Wind Power	54.2 (6)	58.1	55.7
Offshore Wind Power	28.6 (29)	55.6	60.6
Geothermal Power	23.2 (16)	46.0	31.7

Sources : Renewable Energy Country Attractiveness Index (RECAI), July-2021.

Opportunities And Investments For Prosperous India By 2030:

The "Make in India" programme is one such effort in the direction of giving boost to the growth stride of the economy. The program strive to become "A major new national program, designed to facilitate investment, foster innovation, enhance skill development, protect intellectual property, and build best-in-class manufacturing infrastructure." (Make in India, 2015). The commerce and industry ministry has identified 25 sectors where incentives and support will be provided in an effort to further Prime Minister Narendra Modi's Make in India campaign. Thermal power and renewable energy are included in the selected sectors to boost the electricity production. As electricity acts as a prime-mover of the economy, it requires slightly higher growth rate than that of the economy to keep pace for a longer period.[15] However, the following huge opportunities and investments for the biggest democratic country through make in India programmes by 2030 are given below.

(i) The National Solar Mission was launched in 2010. The objective of the mission is to establish India as a global leader in solar energy. The target of the National Solar Mission has been up-seated to 100 GW from 20 GW of grid-connected solar power by 2022.[16]

(ii) India has a wind potential of more than 300 GW (at hub height 100 meters), the solar potential of -750 GW, assuming 3% wasteland is made available Small Hydro potential of - 20 GW, and Bio-energy potential of 25 GW %.

(iii) As per the Paris Accord on Climate Change, the Government of India has set a target of adding 175 GW of renewable power by 2022, which includes 100 GW from solar, 60 GW from wind, 10 GW from biomass and 5 GW from small hydropower. This will offer massive investment opportunities across the value chain. This has further extended to 450 GW by 2030.

(iv) India aims to achieve 40% of installed power generation capacity from non-fossil fuel sources and reduce emission intensity of GDP by 33-35 % from 2005 level by 2030. With the accomplishment of these ambitious targets, India will become one of the largest Green Energy producer in the world, surpassing several developed countries.

(v) India submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC, on its goal of installing 175 gigawatts (GW) of renewable power capacity by 2022 by setting a new target to increase the country's share of non-fossil-based installed electric capacity to 40 per cent by 2030.

(vi) MNRE issues an issuance of a Concessional Custom Duty Certificate (CCDCs) for setting up projects for the generation of Compressed biogas using Urban and Industrial Waste of Renewable Nature.

(vii) Emission reduction of 28% over 2005 levels, against the target of 35% by 2030 already achieved by India.

(viii) India will produce more than three times nuclear power and it is expected to reach 22,480 MW by the year 2031, from the current 6780 MW as more nuclear power plants are also planned in future.

(ix) An investment of INR 1810.56 cr. for 210 MW Luhri Stage-l Hydro Electric ' Project located on river Satluj was approved by Hon'ble PM Shri Narendra Modi. Through this project 758.20 mn units of electricity will generate annually. This will result in direct & indirect employment to around 2000 persons, which will boost socio-economic development of the State.

(x) India has attracted $ 64 bn Foreign investment and made India 4th largest and fastest-growing economy in the world. By 2022 share of RE will expand to 220 GW.[17]

(xi) Pradhan Mantri Kisan Urja Suraksha Evam Uttan Mahabhiyan (PM-KUSUM) Scheme achieved enhanced solar capacity of 30.8 GW- 2022 with the reused central financial support of INR 34,035 cr.[18]

(xii) The 'Grid Connected Solar Roof Top Programme' aims to achieve a cumulative capacity of 40 GW from Rooftop Solar (RTS) Projects by the year 2022. The programme will be implemented with/the total central financial support of INR 11,814 cr. through DISCOMs.[19]

(xiii) In order to attract the large investment for the development of the Offshore wind energy sector in India, the Government of India under the 'National Offshore Wind Energy Policy' has announced to develop 5 GW of offshore wind energy project by 2022 and 30 GW by 2030.[20]

India's renewable energy deployment plans for the coming decade are likely to generate business opportunities worth $20 billion a year, Prime Minister Narendra Modi said on November 26, 2020. Inviting global investors to join what he termed India's unparalleled journey towards expanding power generation capacity so that each citizen got access to electricity, he said the country's renewable energy capacity was now the fourth largest in the world. In the last six years, we increased our installed RE capacity by two and a half times. . . it is growing at the fastest speed among all major countries. Even when it was not affordable, we invested in renewable energy , (and) now our investment and scale is bringing costs down," Mr Modi said at the inaugural session of the Global Renewable Energy Investment Meeting and Expo. “We are showing to the world that sound environmental policies can also be sound economics," he said, urging global investors to consider tapping the recently approved production-linked incentive scheme for manufacturing high efficiency solar power modules in the country. "There are huge renewable energy deployment plans for the next decade. These are likely to generate business prospects of the order of around 20 billion dollars per year. I invite investors, developers and businesses to join India's renewable energy journey", he concluded.[21] Today’s slogan is ‘Green Energy’. That’s why, Green energy generation will create a demand for skill sets in the construction and installation of wind or solar farms which in turn have to be run and maintained and which will need its own skilled manpower. Transmission and distribution will follow and demand its own set of specialists focusing on transmission system and delivery within and between states while distribution service providers will secure service delivery and provision. Green energy is now an article of faith within and between nations while it is as clear to see that energy security is paramount for every country. The meeting point of these two aspirational roads, is the Energy Engineer. Someone who meets the criterion of saving the planet, while securing the nation.[22]

Conclusion:

No doubt, the COVID-19 has completely changed our world particularly both in socially and economically. As a result the Corona Virus lockdown has immensely affected the biggest drop in energy demand in history, with only renewables managing to increase output through the crisis. As people around the world consume less oil, gas and coal, electricity generated from the wind and sun will keep flowing, resulting in an unprecedented 8% decline in global carbon dioxide emissions this year, according to a report from the International Energy Agency (IEA). Despite of the huge COVID-19 crisis, India will be the fastest growing economy in the world in 2021 and 2022 according IMP projection. The IMP has retained it’s forecast of India’s economic growth at 9.5 percent in 2021 and 8.5 percent in 2022. To retain the growth rate and to fulfill the energy demands, India targets 70% of our energy coming from renewable sources by 2050. That is why, Indian companies in the renewable sector should rise to the occasion like our IT companies and use ‘Make in India’, a catalyst for a high growth and create huge opportunities for the youth in our country in order to save the planet and securing the nation from the massive pollutions.

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The Effect of Temperature Change on Agricultural Productivity and Efficiency in West Vidarbha – A Geographical Analysis

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DOI-10.5281/zenodo.7052531

Abstract

The increase in temperature is found to be more or less the same in all the regions and the effects of this increase in temperature are seen in different areas. Various factors are responsible for the rise in temperature. Rising temperatures, illegal deforestation, overpopulation, industrialization, increased use of electronics, etc., have contributed to the rise in temperature. Temperature rise has a direct effect on rainfall distribution and has a direct effect on agricultural productivity and efficiency. Rising temperatures have eroded most of the agricultural land, while high temperatures have burned crops. The last few decades have seen an increase in global warming and its impact on agriculture. Although the agricultural yield has increased in some areas, the agricultural yield per hectare i.e. agricultural productivity has decreased. Present paper has discussed the impact of temperature change in agricultural productivity and efficiency in the West Vidarbha region of Maharashtra state.

Key Words: Temperature, Change, Climate, Agriculture, Productivity, Efficiency, Effect

Introduction

West Vidarbha includes the Amravati division of the state of Maharashtra. The region consists of five districts namely Amravati, Akola, Washim, Buldhana and Yavatmal. West Vidarbha is known as the tropical region of Maharashtra. Summer temperatures in the region are found to be above average. In the present paper, the district wise study of changes in the average temperature in West Vidarbha for the years 1991 and 2021 and the agricultural productivity index and efficiency index during this period has been studied. West Vidarbha has seen a rise in temperature but a slight decline in agricultural productivity and efficiency. This means that the temperature rise has adversely affected the agricultural sector in the study area.

Objectives

The particular objectives of the present research paper as follows,

1) To discuss the change in temperature, agricultural productivity, and efficiency in the study region
2) To analysis the effect of temperature change on agricultural productivity and efficiency in the study region

Data Source and Methodology

The analysis of the present research work is mainly based on the secondary source. The related information and data is collected from Divisional Agricultural office, Amravati, Crop Report, and Regional metrological Department, Nagpur. Agricultural productivity is calculated by Mohammd Shafi's method with the use of following formula,

Agricultural Productivity = (Y ÷ Yn) ÷ (T ÷ Tn)

Y = Production in unit area, Yn = Production in total area , T = Crop area in unit area , Tn = crop area in total region

The agricultural efficiency index is calculated by Ganguli's method with the help of following formula,

En = (Iyn x Cn) ÷ 100

En – Agricultur Efficiency Index, Iyn – Yeild of Crop, Cn – Crop Land Share in Percentage

Change in temperature, productivity and efficiency is calculated by using following formula,

Change = Current Year Value – Last Known Year Value

The present discussion is based on the year 1991 and 2021. All collected and calculated values presented on the table and results presented in the maps and graphs.

Study Region

Study region i.e. West Vidarbha region is also known as Amravati division. There are total fives districts are included in this region. Amravati, Yavatmal, Akola, Washim and Buldhana. The region is situated in between 19^0 23' N to 21^0 43' N latitude and 75^0 57' E to 79^0 09' E longitudes.

Total geographical area of the study region is 46547 Sq.Km. and its share is 14.75% to the total geographical area of Maharashtra state. Total population of the region is 11258117 according to the year 2011 census,

Average Temperature in West Vidarbha

The average annual temperature in the West Vidarbha region is occurred in between 26^0 to 28 ^{0} Celsius. West Vidarbha region falls in tropics, the temperature in this region is hot. West Vidarbha has the highest temperature in all the districts in the month of April end and complete May. In West Vidarbha, the rainy season is cloudy while the dry season is mostly clear. In Vidarbha, the minimum temperature in winter is 12^0 Celsius and the maximum temperature in summer rises up to 45^0 Celsius. But in the year 2021 and 2022 the maximum temperature in summer rises up to 48^0 Celsius in some districts.

District wise Average Temperature in West Vidarbha

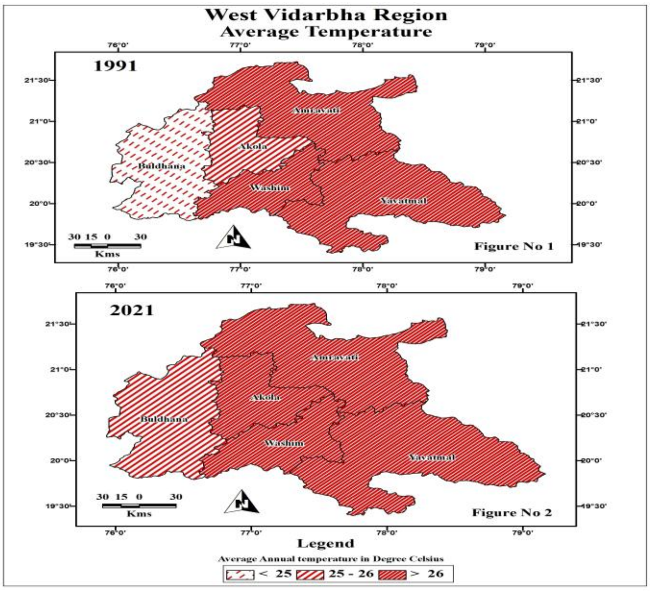
District wise average annual temperature in the year 1991 and 2021 is shown in the table no 1.

Table No 1, District wise Average Temperature in West Vidarbha Region in the Year 1991 & 2021

Districts	Average Annual Temperature in Degree Celsius (1991)	Average Annual Temperature in Degree Celsius (2021)
Buldhana	23.7	25.3
Akola	25.6	27.4
Washim	27.1	27.9
Amravati	26.4	27.2
Yavatmal	26.01	27.6
Total Region	**26.11**	**27.13**

Source – Regional Metrological Department, Nagpur

There are several changes occurred in the average temperature of the study region during the period 1991 to 2011. In the year 1991 total temperature of the study region found 26.11^0 C and in 2021 it found 27.13^0 C. In the year 1991 the average temperature is found more than 20^0 C in all districts. The maximum average temperature is recorded in Washim district 27.1^0 C and lower temperature is recorded in Washim district 23.7^0 C. In Amravati (26.4^0 C) and Yavatmal (26.01^0 C) found the temperature in between 26 to 27^0 C, while Akola (25.6^0 C) district found in between 25 to 26^0 C.



The Average temperature of West Vidarbha region is 27.11^0 C in the year 2011 and it rises compare to the year 1991. This year also the highest temperature is occurred in Washim district 27.9^0 C. The average temperature is found more than 25^0 C in all districts in the year 2021. Buldhana district again recorded the low average temperature 25.3^0 C in 2021 compare to other districts of the study region. In remaining districts the average temperature is recorded more than 27^0 C. Although the district-wise distribution is uneven, the average temperature in 2021 has increased in every district compared to 1991. Most of the Buldhana district is hilly so the temperature is a little lower there. Also, Amravati has the highest amount of natural vegetation in West Vidarbha. But the average temperature has increased due to continuous illegal deforestation.

Agricultural Productivity in West Vidarbha

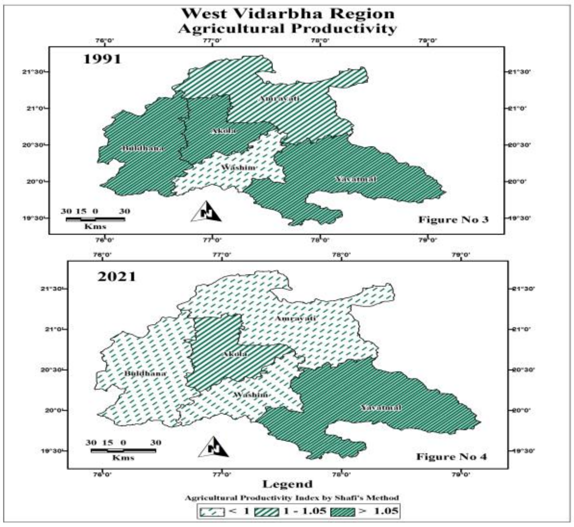
District wise agricultural productivity index in the year 1991 and 2011 is shown in table no 2.

Table No 2
District wise Agricultural Productivity in West Vidarbha (1991 & 2021)

Districts	Agricultural Productivity Index (1991)	Agricultural Productivity Index (1991)
Buldhana	1.12	0.87
Akola	1.14	1.02
Washim	0.99	0.92
Amravati	1.03	0.91
Yavatmal	1.26	1.06
Total Region	**1.09**	**0.95**

Source – Productivity index is calculated by author

The productivity index of the total region is found 1.09 in the year 1991 and in 2021 it found 0.95. The production is increased but the ratio of production in per yield is decreased during last two decades. The variations are found in district wise productivity index in both years 1991 and 2011 due to the uneven cultivated area and sources of irrigation. n the year 1991 highest productivity index is found in Yavatmal district 1.26 and low productivity is found in Washim district 0.99. In other all district this productivity index is found more than 1. In the year Yavatmal district again found the maximum index of productivity 1.06, compare to the other districts of the region. But per yield production is slightly dcreased in 2021 than 1991. In the year 2021 Buldhana (0.87) found the lowest index of productivity in the entire region. Amravati (0.91) and Washim (0.92) also found this index less than 1. The index is found more than 1 only in Yavatmal (1.06) and Akola (1.02) districts. In Yavatmal district there are more irrigation projects and as a lot of the land is flat, the agricultural productivity is higher than in other districts.



Agricultural Efficiency in West Vidarbha

The district wise agricultural efficiency index is presented in table no 3 of the year 1991 and 2011.

Table No 3
District wise Agricultural Efficiency in West Vidarbha (1991 & 2021)

Districts	Agricultural Efficiency Index (1991)	Agricultural Efficiency Index (1991)
Buldhana	23.52	23.41
Akola	15.81	15.45
Washim	13.63	13.12
Amravati	19.32	18.22
Yavatmal	24.68	23.95
Total Region	**19.36**	**18.74**

Source – Efficiency index is calculated by author

The agricultural efficiency index in the study region also shows a decline similar to the productivity index. In the year 1991, the agricultural efficiency index of Sampur region was 19.36 and in 2021 it was found to be 18.74. In the year 1991 Yavatmal district is recorded maximum efficiency index 24.68 and then it found in Buldhana 23.52. The index in these districts is more than 20. Washim district found lowest efficiency index 13.63 and in other district the efficiency index is recorded in between 15 to 20. In then year 2021 the efficiency index is decreased in all districts of the region. This year also Yavatmal (23.95) and Buldhana (23.41) districts found higher value of efficiency index, more than 20. Washim district again recorded lower value of this index 13.12. Other districts in the region found this index in between 15 to 20 and it is almost same as 1991. But the efficiency is quite decreased in all over the region.

Change in Average Temperature, Agricultural Productivity and Efficiency

District wise changes in these factors are shown in table no 4.

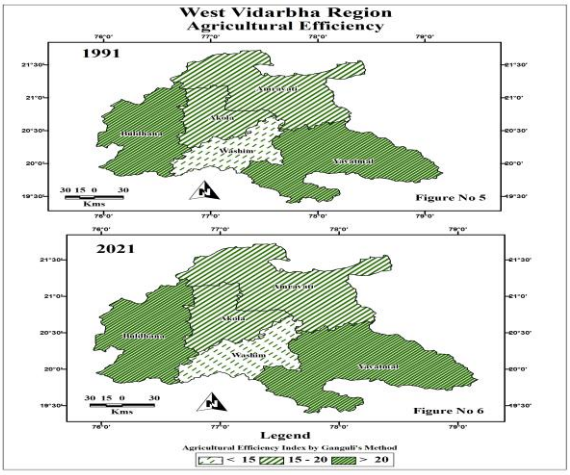
Table No 4
Change in Average Temperature, Agricultural Productivity and Efficiency in West Vidarbha (1991 to 2021)

Districts	Change in Average Temperature (Degree Celsius)	Change in Agricultural Productivity Index (1991)	Change in Agricultural Efficiency Index
Buldhana	+1.60	-0.25	-0.11
Akola	+1.80	-0.12	-0.36
Washim	+0.80	-0.07	-0.51
Amravati	+0.80	-0.12	-1.1
Yavatmal	+1.59	-0.20	-0.73
Total Region	**+1.02**	**-0.14**	**-0.62**

Source – Change is calculated by author

Change in Average Temperature

During the period 1991 to 2021 total 1.02^0 C, but its ratio is not uniform in all districts. Maximum growth of temperature in Akola district 1.8^0 C and then Buldhana 1.6^0 C and Yavatmal district 1.59^0 C. In Washim and Amravati district average temperature rises up to 0.8^0 C during the period 1991 to 2021. The growth in average temperature shows the increasing amount of pollution in the entire region.



Change in Agricultural Productivity

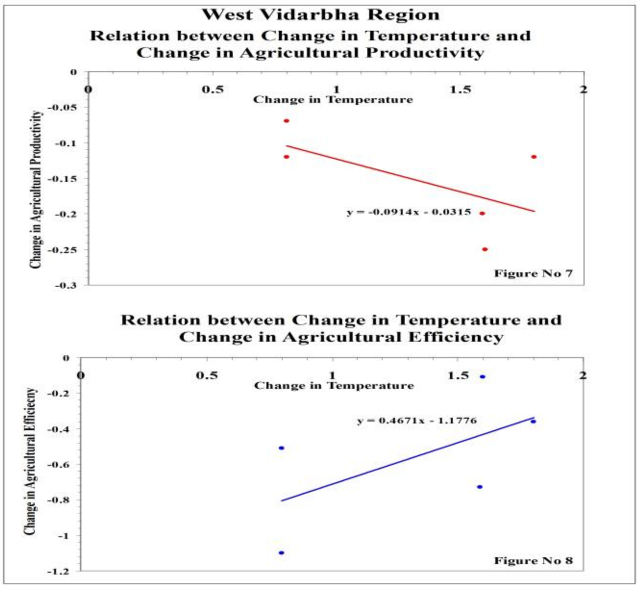
There are negative changes occurred in agricultural productivity in the whole region. The productivity index is decreased in all districts of the region. Actually the agriculture production is increases but per yield production is not increased compare to the growth of cultivated land in the region. Therefore this index is found less than 1991in 2021. In the entire region the index is decreased by 0.14 during 1991 to 2021. Maximum negative change is occurred in Buldhana (-0.25) and then in Yavatmal (-0.20) district. The lowest negative change is occurred in Washim district -0.07. In Washim district, the amount of temperature increase is less compared to other districts, so the agricultural productivity is slightly reduced.

Change in Agricultural Efficiency

The efficiency index value is decreased by 0.62 during the period 1991 to 2021. The efficiency index is decreased in all districts of the region. The efficiency and productivity is like the two sides of one coin. The highest efficiency is decreased in Amravati district and it shows that the agricultural productivity of Amravati district has decreased due to the decrease in agricultural efficiency in this district. Also, the agricultural production is not compared to the agricultural efficiency of this district. Buldhana district has the lowest rate of efficiency loss and in all districts except Amravati, this index is less than

Effect of Temperature Change on Agricultural Productivity and Efficiency

The effect of change in temperature on the agricultural productivity and efficiency is presented with correlation between them. The relation between change in temperature and change in agricultural productivity is negative (r = -0.60). It means the change in temperature is not so much impact on the agricultural productivity. But the relation between change in temperature and change in agricultural efficiency is positive (r = +0.23) and it low degree positive.



It means the rising temperature is directly impact on the efficiency of agriculture in the study region. The increasing temperature decreases the efficiency of agriculture. The reducing agricultural efficiency effects on the agricultural productivity in the region. That is, although rising temperatures do not have a direct impact on agricultural productivity, they do have an indirect impact, because rising temperatures have reduced agricultural efficiency, and reduced agricultural efficiency has reduced agricultural productivity.The relationship between these two factors is shown with the help of regression line.

Conclusions and Suggestions

In West Vidarbha, the average temperature has increased in every district during the period 1991 to 2021. Also, due to continuous illegal deforestation in forest areas like Melghat in Amravati district, the temperature of the district has increased and it has directly affected agriculture. The forest region of western Vidarbha is rich in natural resources, but the climate of the region has been affected the most due to deforestation in the region. West Vidarbha has increased by more than 10^{0}C from 1991 to 2021. Yavatmal district has the highest number of irrigation projects, yet the rate of decline in agricultural productivity and efficiency is high. The main reason for this is the rise in temperature in the district. Buldhana district as well as northern part of Yavatmal district is a water scarce region. Akola and Washim also face water drought in summer. If the rise in temperature is not stopped in time, this crisis will worsen in the future. It is necessary to stop illegal deforestation and increase natural vegetation cover. Today considering the seriousness of global temperature rise it is necessary to reduce pollution and also to increase the amount of forests in every area as it will balance the climate and thus increase agricultural efficiency and increase agricultural production.

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The Historical Overview on Ambagad Fort in Bhandara District

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DOI-10.5281/zenodo.7052555

Abstract

Forts are witnesses of history, they are symbols of ancient civilizations. The forts were not only for the residence of the king, but also for the protection of the subjects, and their usefulness was to keep the entire subject in check. Even today, many forts stand witnessing the history. Even after so many years, these forts still look strong. The skill and hard work required to build the fort can be seen from this building.In the present paper, Ambagad fort located in Bhandara district has been analyzed and a historical review has been done.

Keywords : Ambagad, Vandurg, Historical, Overview

Introduction

The Satpuda mountain ranges are spread from east to west along the northern border of Vidarbha. To the south of this range in Vidarbha lies Bhandara district. The southern hills of the Satpura range passing through Bhandara district are known as Ambagad hills. In this hill there is Ambagad forest fort called Ambagad Vandurg. This forest fort is located in Ambagad village in Tumsar tehsil of Bhandara district. Historical analysis of this fort has been done in this paper.

Objectives

The main objective of this study is to describe the historical importance of the forest fort of Ambagad in its present situation.

Data Source & Methodology

The analysis of the presented paper is mainly based on secondary sources. This information is based on daily current papers, published books, previously published research papers, articles, and information available on internet. It is also based on the experience after actually visiting this fort. Comprehension of the information collected and presented in one's own words.

Location of Ambagad Fort (Vandurg)

Ambagadh is a forest fort in the north of Bhandara district. Latitudinal position of this fort is 21^0 26' 48" North and Longitudinal position 79^0 40' 46" East. The height of this fort is 534 meters above sea level. Tourists and hikers find the fort easy to climb.

Transport Accessibility and Accommodation Facility

It is convenient to go to Ambagad from Bhandara. The route from Bhandara goes through Tumsar. After heading towards Gobarwahi after Tumsar tehsil, one can go to Ambagad from Mitewani. Also, one can reach Ambagad from Nagpur via Ramtek to Kandri and from there via Gaymukh. As Bhandara is the main place of the district, good private hotels and government accommodation are available in the vicinity of the railway station and bus station. There is no accommodation facility available for tourists in Ambagad area.

The Historical Overview

In 1700 AD, there is a mention of the construction of the Ambagad fort by Bakhtabuland Shah, a Sardar of Rajkhan Pathan of Shivani. It is a very steep climb and this fort is a very strong construction on the Satapuda mountain range and is still standing as a testimony of its past glory. Similarly, many characteristics of Gond rule are seen in this Ambagad Vandurga. The total area of this fort is 47045 square meters and the length of this fort is about 1802 feet in the north and 131 feet in the south. It is also 279 feet to the east and 262 feet to the west. At the eastern foothills of Ambagad there is a temple of Hanuman. There is a way to go to the fort from near this temple.This road leading to the fort is on the east side of the fort and the steps along this route are newly constructed. It takes twenty to twenty five minutes to reach the fort's Mahadwara. The bastions near this entrance are built of lime and brick. On entering through the door, the first thing you see is the guards' quarters. There is a tower at the top and a view of the fort's surroundings. There are gun emplacements on the bastions within the fortifications. The heights of these are also in a dilapidated condition. The shape of the fort is oblong and manageable. Three to four stories are built on the middle plateau. After walking from here, this road leads to the western end of the fort. It takes around an hour and a half to walk around the entire fort. While visiting the fort, one can see the ruins of small palaces, beautiful stone umbrellas and baths, horse stables, ambarkhana, water tanks. Also, there is a Muslim shrine called Bandzira near the fort, and around the road leading here, one can see the magnificent ponds and Bagheda reservoir. Also the dense forest around the fort is visible. Ambagad fort has a basement. There are steps to get down in this and this place is called Aadhaar Kothdi. To the south of the basement is a living room and the basement has two grand rooms. They have beautiful carved arches. There is a small window in this basement through which air and sunlight come in and there is a very pungent smell.Ambagad Fort is a unique example of Gond architecture and Raghuji Bhosale established his rule over this area in 1740 AD. The Bhosale rulers of Nagpur used this fort as a prison to keep criminals. Criminals were killed by drinking poisonous water from the well in this fort. The British took over this fort around 1892 and the maintenance and repair of this fort was entrusted to the famous Malgujar Shri Ganpatrao Pandey. Manbhatta Upadhyay, who fought against the British in the battle of Sitabardi in 1817, was kept in this fort. Also Dharmaji Bhosle was also kept in this fort and he died by drinking the polluted air and poisonous well water. There are many legends about this fort. Koshti Kavadu Patel here was arrested for witchcraft and imprisoned in the basement of this fort. He also died after drinking the poisonous water of the well there. He was later buried on a hill near the settlement at the base of the fort. His grave is called the God of Ambagadh by the local people and worshipers and vows are found at his grave.

Present Situation of Ambagad

As the ramparts of Ambagad fort have collapsed in many places, it is not possible to take a ferry from the ramparts. Also the tower on the left is in a state of collapse. Due to lack of cleaning and proper maintenance, large trees have grown on this fort and the ruins of the fort are dilapidated at many places.

For the development and conservation of Ambagad Forest Fort, it is necessary to repair and maintain the construction on the fort properly. Also, for the development of tourism, it is necessary to develop transport system, food system and drinking water system etc. in the fort. Thus, the number of tourists will increase and the information about the importance and history of this fort will reach the masses.

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A Study on emerging role of online payment platform in post covid era

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DOI- 10.5281/zenodo.7052580

Abstract
The Covid-19 pandemic has boosted the use of digital and contactless payments. These payments include transfers initiated via online banking, a mobile banking app or an automated transfer. This study tries to analyze the awareness among the users of online payment applications and to find out the most preferred online payment application among users. For this purpose I conducted own research with sample size 100.The research findings confirms that the online payment platform have more impact in post covid era. . Most of the users extremely aware about various online payments modes and its merits and demerits also. For statistical processing of results I used chi-square test and Weighted mean

Keywords: Online payment, Covid –19, Digital awareness

Introduction

During the pandemic, more consumers became comfortable purchasing routine items online or with their smart phones to avoid risky in-person interactions. Lockdowns and restrictions have resulted in changes in consumer behavior. One of the direct results of the pandemic was a noticeable growth in online shopping. The e-commerce market is more popular than ever before, thanks to the adoption of ordering groceries and other everyday goods onlineThroughout history, individuals have used different payment systems for purchasing products and services. The money-transferring apps can come in handy when you need to transfer or pay money instantly, online bill payment and mobile recharge within a few minutes. By using money transfer apps, you can securely and digitally transfer money to anyone you want, both domestically and internationally. One of the main benefits of money transferring apps is convenience because it gives customers the benefit of emitting whenever they need to, wherever they are. Several money transferring apps allow the users to make online payment, fund transfer and operate their cash anywhere anytime. COVID-19 is further increasing the need for E-cash transactions. It creates greater demand to money transferring apps where cashless transactions are prioritized. The covid-19 pandemic could move the world more rapidly towards digital payments. Payment systems have demonstrated that they are dependable and durable, and continue to command a high level of confidence from the general population. However, closure of businesses and the lockdown have resulted in lower transaction volumes overall. To aid the recovery and lead the emergence into this new normal, it is imperative for the digital payments ecosystem to evolve rapidly and help shape the post-COVID era. The growth of the internet, mobiles and communication technology added a different dimension to money transferring.

Objectives of the study

Online payment platform are to reduce the costs and risks of handling cash, increase the ease of conducting online transactions, and increase transparency among monetary transactions among people. The main objectives of this study are:.

1. To analyze the awareness among the users of online payment applications
2. To find out the most preferred online payment application among users

Statement of the problem

COVID-19 made vibrations in the operations as well as product and services of banks .It create greater demand to money transferring apps where cashless transactions are prioritized. Mobile users can now a day use the smart phones to make money transaction or payment by using applications installed in the phone. When temporary problem occurs while using online payment platform, it creates in-convenience to customers. In a paperless transaction; many problems of security are involved. The people are afraid about the secrecy of the transactions. Therefore, this study aims to analysis and find out awareness and preference towards online payment platform after the occurrence of COVID-19

Scope of the study

Saving time and saving money is a basic human wish and need. Prior to the COVID-19 outbreaks, digital payments, especially mobile payments, were growing incrementally. Due to the drastic changes I have to decide to do study on the impact of COVID-19 on the use of online payment platform among people. Different classes of people's are transacting through different payment apps. The study further helps to improve the awareness among the users of different online payment applications.

Limitations of the study

The study is done with reference to Trissur city so it difficult to study the impact of COVID -19 of large population

The sample size is limited to 100 respondents.

Review of Literature

1. A general scanning of the literature available in India from different published sources indicates that very few detailed studies have been conducted in India in the field of emerging role of online payment platform in post covid era.
2. Singhal Rashi (2021): quoted in her paper "Impact and Importance of Digital Payment in India" that services offered by banks in digital form provides various opportunities to the banks when it comes to the benefit of their customers. The shoppers have a great impression along with a worthwhile effect upon the use of digital payments services. As one of the largest providers of financial and monetary services in our smart cities and the bush of rural areas, business banks provide inimitable services to their potential customers. She has founded that RBI and Indian government has brought up some noticeable acceptances with an entry of a mode such as non-financial system of deferred payments
3. M.Thangajesu Sathish, R.Sermakani, and G.Sudha (2020) this study is revealed that the traditional system of cash transaction cannot completely be replaced by card or e-payment system. People can adopt and use their mobile wallets for the payment transaction, fund transfer, purchasing groceries and paying bills etc. The study has discussed the trust is the main factor affecting users' satisfaction directly and it impacts on many users intention to adopt mobile wallets
4. G.Sudha and M.Thangajesu Sathish (2020) article is revealed that after demonetization retailers will adopt the digital payment methods. The researcher analysed to find out the payment methods between the pre and post period of demonetization. Most of the retailers used their payments through using various applications.

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5. G.Sudha and Dr.V.Sornaganesh (2019) article is revealed that after demonetization changes in buying behaviour are clearly explained. After demonetization the main impact is reduce the paper money and increase the digital cash. Most of the customers used digital cash after the demonetization, used through the mobile applications, Internet Banking, etc., for paying their bills

Research Methodology

Research Design

The study follows the descriptive method of research to measure, evaluate and analyze the impact of online payment apps among customers. Primary data has been collected through questionnaire

Research Approach

The approach adopted in this study is survey approach.

Tools used for the study

Statistical tools are involved in carrying out a study include planning, designing, collecting data, analyzing, drawing meaningful interpretation and reporting of the research findings. The tools are Chi-Square test and weighted mean

Data Source

Both primary and secondary data used for the study. The Primary data for this study was collected through questionnaire and responses collected through Google form. Secondary data was collected from external sources like Websites, Journals in form of review of Literature with references.

Sampling Area

Trissur district is selected for taking the samples for the study.

Sample Size

The sample size of the study is limited to 100.

Sampling Procedure

The sampling procedure used in the study is Convenience sampling. A convenience sample is a type sampling method where the sample is taken from a group of People easy to contact or to reach

Analysis and Interpretation

The data collected for the study showed in this chapter. The results are show in the form of test and ranking method are conducted and necessary explanations are given below

Table 4.1 Relationship between gender and awareness towards online payment applications

Gender	Known about online payment applications		Total
	Yes	No	
Male	30	18	48
Female	32	20	52
Total	62	38	100

Source; primary data

Null hypothesis (h0): There is no significant association between gender and Awareness towards online platform applications Alternative hypothesis (h1): There is association between gender and Awareness towards online platform applications

Table 4.2 table of calculation

CHI SQURE TEST

Observed frequencies	Expected frequencies	(O –E)2	(O-E)2 /E
30	29.76	0.0576	0.00193
18	18.24	0.0576	0.00315
32	32.24	0.0576	0.00178
20	19.76	0.0576	0.00291
		0.0576	0.00977

Table value at 5%level of significance and 1degree of freedom=3.841 Decision: since the calculated value of x2 is less than the table value h0 is accepted.

Interpretation: There is no significant association between the gender and awareness towards online payment platform

Table 4.3 Table Showing Respondents Preference towards Money Transferring app

Factors	Rank Values	5	4	3	2	1	15	Weighted Mean
Google Pay		59 (295)	15 (60)	19 (57)	1 (2)	6 (6)	420	28
Phone Pay		11 (55)	55 (220)	23 (69)	9 (18)	2 (2)	364	24.27
Paytm		23 (115)	21 (84)	51 (153)	4 (8)	1 (1)	361	24.07
PayPal		2 (10)	6 (24)	5 (15)	46 (92)	41 (41)	182	12.13
Amazon pay		7 (35)	3 (12)	2 (6)	38 (76)	50 (50)	179	11.93
Total		510	400	300	196	100	1506	100

Sources: Primary Data

Criteria	**Rank**
Google Pay	1
Phone Pay	2
Paytm	3
PayPal	4
Amazon pay	5

Interpretation: It can be noted from the table No.4.3 that the respondents preference towards money transferring apps. Most preferable app by the respondents is Google Pay with mean value 28 and Amazon pay is least preferable app by the respondents, with mean value 11.93.

Findings

There is no significant association between the gender and awareness towards money transferring apps. Majority of the respondents prefer Google Pay for money transferring

The research reveals that majority of respondents like to continue use of the application after COVID effect

Suggestions

In order to attract more people to use this applications provide more rewards and offers

Through giving more awareness about this application people are ready to use this one.

Conclusion.

Online payment platform bring tremendous changes in the economy. It plays an important part in our day to day life. Most of the respondents are aware about the services of money transferring apps. The digital payment had given relief and force to learn digital transaction after COVID effect. The study reveals that COVID-19 made most of the respondents switch to use money transferring apps instead of visiting bank branches for making transaction. The study shows that most preferable money transferring app by the users is Google Pay. Technology helps the customers to fulfill their needs from home itself. The money transferring apps made greater impact on their users after COVID-19 effect.

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India's Environmental Problem and Remedies

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DOI- 10.5281/zenodo.7052600

Abstract: The Indian environment has undergone a significant degradation in the last 50 years due to the rapid degradation of natural resources and the huge increase in pollution levels. Depletion of forests, population growth, vehicular emissions, use of hazardous chemicals, and various other undesirable human activities are mainly responsible for this deteriorating landscape of environmental health in India. In fact, it is causing considerable economic damage to the country and requires the utmost serious attention of the policymakers, administrators, scientists and people to save the environment and humanity and provide generational equality.

Keywords: Environmental Health, Global Issue, Greenhouse, Degradation, Protection Act.

Introduction:

India's achievement in science and technology during the last five decades appears to be very impressive which will reveal the expertise in built-in space research, nuclear engineering, steel production, fertilizers, petroleum, chemicals, machine tools, construction of large dams, etc. The miraculous achievement has been made in agricultural production during the last three decades through the Green Revolution, which transformed India in the fifties from an exporter to an importer of food grains. Technological progress in agriculture is made through the increase in production of new high-yielding varieties of crops through the use of chemical fertilizers and pesticides. Undoubtedly, by bringing more land under food crops for the growing population, mankind has been saved from hunger and epidemics. On the other hand, various development activities like the construction of huge dams, and the setting up of power plants and industrial units have changed the human-nature relationship. They have changed not only the economic and socio-cultural life of the people but also their values, systems, ideas, beliefs, and indeed their entire lifestyle. The destruction of more forests for the expansion of land for agricultural purposes, for buildings, roads, and other constructions has led to the extinction of many plant and animal species and is also responsible for the ecological imbalance.

Environmental Problem and Global Issue:

India is not the only country facing environmental issues. Certainly, air and water pollution and climate change are more global issues that require a concerted effort by all countries to resolve. A report by the Intergovernmental Panel on Climate Change suggests that the world will experience so-called tipping points in ocean acidification, ice sheet melting, sea-level rise and climate impacts sooner than ever. Although environmental issues are global in nature, each country with jurisdiction over its territory is in control of its own environment and, therefore, must control, monitor and enact regulations to protect its environment. This is also true for India. The Copenhagen Agreement makes it clear that it is up to individual countries to formulate and implement the necessary regulations to achieve their national commitments to combat global warming by reducing greenhouse gas emissions. Due to the specific role of the country in controlling and monitoring the environment, it is difficult to apply environmental standards to countries from a global perspective, each country must be prepared to consider and participate in environmental issues as a potential contributor to the overall global degradation of the environment. To control it by its laws and by the participation of its industrial sector. In addition, each country can be part of a global organization/organization that uses a global network, technical information, and resources that are the contributing partners of this group to help the environment. In particular, Municipal Solid Waste (MSW) collection and disposal is a major urban environmental problem facing India. India is not the only country with this problem, it seems that many developing countries and even some developed countries have to face MSW as an environmental concern. However, the disposal of MSW in India is a serious concern. Garbage collected by municipalities in India is dumped only outside urban centers. In addition, MSW releases methane and carbon dioxide which increases the effect of greenhouse gases. On environmental issues and concerns, India is overburdened as it is generally accepted that many developing countries have very high pollutant concentrations which leads to substantial costs for health and shorter life expectancy. Since the highest increase in greenhouse gas (GHG) emissions is projected to occur in developing countries such as China and India, these two countries are probably responsible for the future of this world. In the most recent available data, the amount of atmospheric particles in India is five times the concentration level in the United States and seven times the level of China in the US. Notably, in anticipation of the Paris Conference on Climate Change, which begins on November 30, countries are pledging how much they want to reduce emissions in the next few decades. India and Brazil, perhaps the two most polluting countries in the world, are still committed to the Paris Conference.

Major Environmental Issues in India:

Rapidly growing population and economic growth are creating many environmental problems in India. The country's population is projected to grow to about 1.50 billion by 2030. The major environmental problem is deforestation and farmland, Depletion of Resources, Environmental Depletion, Public Health, Loss of Biodiversity, Security of Livelihood for the Poor, Population. The four basic demographic factors of birth, death, migration and migration cause changes in the size, composition, and distribution of the population, and these changes raise many important questions of cause and effect. Population growth and economic development are contributing to many serious environmental disasters in India. These include deforestation, deforestation, habitat loss, and loss of biodiversity. Energy needs have increased due to changing usage patterns. The end result is air pollution, global warming, climate change, water scarcity, and water pollution.

Degradation of Agriculture and Forest Land:

Approximately 60% of forest and farmland degradation is due to soil erosion, water logging, and salinity. It is estimated that between 5.8 and 14 billion tons of soil are destroyed each year by soil erosion. From 1987 to 2020, the average annual per capita water availability has dropped by about 75% to 2657 cubic meters, with groundwater over-exploitation being problematic in the states of Haryana, Punjab, and Uttar Pradesh. The Indian Institute of Agricultural Research estimates that a 5^0C rise in temperature would result in a 20 to 25% loss in annual wheat production. For a country with such a large population, these are significant problems for those who depend on the productivity of primary resources and whose economic growth depends on industrial growth. Forests cover 20.54% of India's geographical area (698000 squre km). Nearly half of the country's forest area is found in Madhya Pradesh (24.3%) and seven northeastern states (29.3%). The latter is experiencing net forest damage. Fuel timber harvesting and expansion of farmland are reducing forest cover. This trend, along with increasing industrial and motor vehicle pollution production, has led to an increase in atmospheric temperature, which is changing the nature of rainfall.

Type of Pollution:

Air Pollution:

Indian cities are polluted by emissions from vehicles and industries. Road dust from vehicles also contributes up to 33% to air pollution. In a city like Bangalore, about 50% of children suffer from asthma. The biggest cause of air pollution in India is the transport system. Excessive pollution was also found to have an adverse effect on the Taj Mahal. Following the court's decision, all traffic in the area was shut down, and all industrial plants in the area were closed shortly thereafter. Air pollution in large cities is rising so much that it is now 2.3 times higher than the level recommended by the WHO. When it was decided to change its entire public transport system from diesel to compressed gas (CPG).

Water Pollution:

Water Pollution out of 3659 cities and towns in India, only 215 cities have partial treatment facilities and only 8 cities have complete wastewater treatment facilities. Used for drinking, bathing, and washing downstream, untreated water. This situation is characteristic of many rivers in India as well as in other developing countries.

Noise Pollution:

The Supreme Court of India passed a landmark judgment on noise pollution in 2005. Unnecessary horns of vehicles cause high decibel noise in cities. The use of loudspeakers for political purposes and through temples and mosques causes noise pollution in residential areas. The Government of India has recently introduced rules for permissible noise levels in urban and rural areas. How they will be monitored and implemented is not yet certain.

Land Pollution:

Land Pollution Land pollution in India is caused by pesticides and fertilizers as well as rust. In March 2009, the issue of uranium poisoning in Punjab came to light due to the fly ash ponds of thermal power stations, which caused severe congenital malformations in children in Faridkot and Bhatinda districts of Punjab, yet the British started deforestation in India. Since the partition of 1947, the pressure of modernization has only increased the rate of deforestation, which has deteriorated the soil, leading to land pollution.

Conservation of Biodiversity in India:

Biodiversity Conservation in India has significant biodiversity in the Indomalaya Ecozone. It is home to 8.3% of all mammals, 14.3% of avians, 7.3% of reptiles, and 6.6% of flowering plant species. In recent decades, human encroachment has become a threat to India's wildlife, in response to which the system of national parks and protected areas, first established in 1935, has been extensively expanded. In 1972, India enacted the Wildlife Conservation Act and Project Tiger to protect important habitats; The next federal defense was issued in the 1980s. With more than 510 wildlife sanctuaries, India now has 18 biosphere reserves, four of which are part of the global network of biosphere reserves. There are 28 wetlands registered under the Ramsar Convention.

Remedies on Environmental Problem:

Environmental Protection Act:

The Government of India has shown some foresight in the field of environmental concerns by enacting laws to protect the environment. India has about two hundred laws related to environmental protection. India's environmental regulations date back to the 1970s. The Water Act of 1974 and the Air Act of 1981 were the first important rules to be enacted. These laws created the Central Pollution Control Board (CPCB) responsible for data collection and policy implementation. It has also developed a detailed procedure for environmental compliance at the central government level. At the same time, another control board called State Pollution Control Board (CPCB) was set up at the state level to collect data and implement the policy at the state level. These other rules were followed to protect the environment. Objectives of the Environment (Protection) Act, 1986 to provide protection and improvement of the environment. Making rules to control environmental pollution; Indicating standards and limits of air, water, and soil pollutants for various areas and purposes; Prohibitions and restrictions on the handling of hazardous substances, and the location of industries or fines may increase as long as anyone found to be responsible for the pollution can be liable to a fine of five lakh rupees to one lakh or both. (Sections 15, 16, 17) An additional Rs. 5,000 per day, however, can result in imprisonment for up to 7 years if not complied with for more than a year.

Forest and Wildlife Protection Act:

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Conclusion:

The rapid economic growth experienced by India is creating adverse and detrimental environmental conditions that are affecting the people of India as well as the wider global population. In the case of India, this is further exacerbated by the high population density and growth rate. Existing environmental laws, although covering a wide spectrum of environmental concerns, appear to be ineffective due to lack of implementation, lack of resources, and technical challenges facing a large number of Indian companies, especially SMEs. In this scenario, India will have to adopt some sustainable measures which will address many issues facing the country, including environmental degradation, to sustain sustainable economic growth. Sustainable development, i.e., a prosperous economy and a healthy environment, which in many respects is the goal of diverse interests in the field of environmental issues, is important for the future of India and the world. Sustainable development means managing the various interests of a prosperous economy and at the same time maintaining a healthy environment.

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

India's Energy Strategy for Sustainable Development: Move towards Clean Energy

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DOI- 10.5281/zenodo.7052616

Abstract

Developing country like India in its progress towards achieving economic growth has to depend on various energy sources to achieve its growth objective. Higher economic growth is pre-conditioned by larger dependency on energy. But the reliance on non-renewable sources of energy can contribute to environmental pollution through emission of green-house gases. The present study is an attempt to identify the strategies to achieve sustainable development through sustainable energy usage. The study has identified that by reducing the dependency on coal and other non-renewable energy sources and concentrating more on renewable sources of energy can help in achieving sustainable development without depleting the environment and its ecosystem.

Key Words: Solar Energy, Sustainable Development, Renewable sources, Environment

Introduction

Energy has been widely considered as one of the most important inputs for economic growth and human development. Economic development and energy consumption are mutually related. The growth of an economy with its global competitiveness, depend on the availability of cost-effective and environmentally friendly energy sources to achieve its development objective. Similarly, as an economy move towards higher level of economic development, the country will have to identify ways by which it can meet the growing energy demand of its citizens. India's has been witnessing increased energy consumption recently due to its increasing population and focus on economic development. Primary commercial energy demand grew at the rate of six per cent between 1981 and 2001 ((Planning Commission 2002). India accounts for about 3.5% of the world commercial energy demand in the year 2003 and ranks fifth in the world in terms of primary energy consumption[1]. Even though the overall energy demand in India has increased, its per capita energy consumption is still very low compared to other developing countries.

Statement of the Problem

India is the world's third-largest energy consuming country due to the rising incomes and improving standards of living. Energy use has doubled since 2000, with 80% of demand being met by coal, oil and solid biomass (IEA, 2021). India will soon overtake China to become the country with the largest population. The ever increasing demand for energy can lead to more and more dependency on fossil fuels which in turn can contribute to environmental degradation, Greenhouse Gas emissions and climate change. Being a developing country, to achieve adequate economic growth, India has to continue its productive activities. In this era of Sustainable development, the study focusses on measures to be adopted by Indie to achieve sustainability in energy usage without harming the environment and at the same time not curtailing its productive activities.

Objectives

1. To understand energy scenario in India
2. To identify key energy and economic indicators of India.
3. To investigate how solar energy can act as an energy source for sustainable development.

Research Methodology

The study has used various secondary literature and sources of data available both from print and electronic media. The data required for the present study were collected from secondary sources such as World Energy Outlook internet and similar sources.

Need of the Study

The study tries to explore the opportunities and challenges ahead for India as it march towards the objective of providing reliable, affordable and sustainable energy to a growing population. India has seen huge success in its recent energy development, but several challenges still exist. The covid-19 pandemic has added to the challenges and some of the problems include lack of reliable electricity supply for many consumers; continued reliance on solid biomass leading to poor air quality and environmental pollution. This study tries to explore how India could mobilise an additional increase in clean energy investment leading to a decline in emissions, while accelerating its progress towards a range of sustainable development goals.

[1] https://mea.gov.in/articles-in-indian-media.htm?dtl/13586/Lighting+up+with+renewables

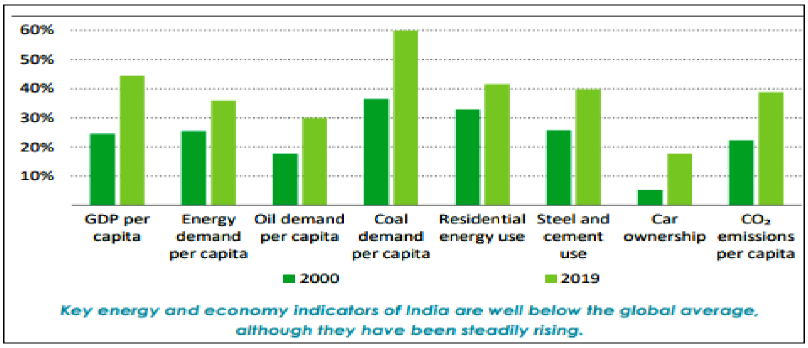
Energy Scenario in India

Coal, oil, and natural gas are the three primary commercial energy sources in India and coal was the largest source of energy. Even though the dependency on commercial fuels are increasing in India, almost 40 % of the rural households still depend on non-commercial energy sources like fire-wood, crop residue and animal waste. Growth in energy supply has not kept pace with increasing demand and therefore, India continue to face serious energy shortages which in turn has led to increased dependency on imports to meet its energy demand.

Indicators of Energy and Economic Growth

Energy is one of the key input for economic growth and availability of energy and the growth of a nation are directly related. Hence, energy consumption and per capita gross national product are positively correlated. For example, per capita energy consumption in USA was 15.5 times and in Japan 8 times that of India (IEA/OECD). Increased dependency on non-renewable sources of energy can lead to its depletion, contributing to environmental pollution and making it difficult to meet the needs of future generations. Development should be sustainable which means that the needs of the present generation should be met without compromising the ability of future generations to meet their own needs. Renewable energy sources is a viable option to achieve a sustainable energy use protecting the environment. India has a great potential to generate power from renewable energy sources like small hydro, biomass, wind and solar energy. Greater reliance on renewable energy sources offers enormous economic, social, and environmental benefits and can help in sustainable energy usage. The energy demand in India has been increasing due to several factors like expanding economy, population, urbanisation and industrialization. This has led to increased demand for construction materials like steel and cement which in turn spurs the demand for energy usage especially non-renewable energy in manufacturing sector. The following figure clearly shows the increased demand for energy per capita and other key indicators in India as a percentage of global averages. The per capita demand of coal has increased considerably which shows that the non-renewable energy usage has increased in 2019 compared to 2000. The increased use of non-renewable energy sources can contribute to environmental pollution and emission of green-house gas emissions (GHG) resulting in global warming.

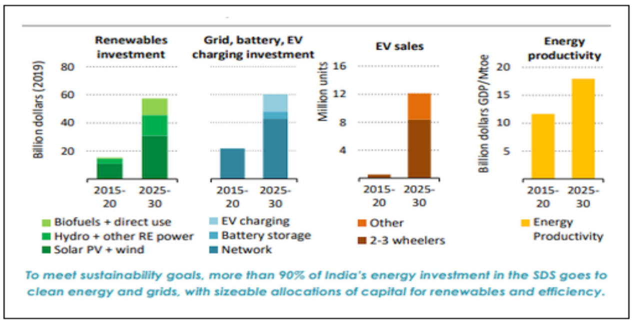
Figure: 1 Key indicators in India as a percentage of global averages



Source: World Energy Outlook- Special report on India, 2021, IEA

India which is rich in renewable sources of energy like wind and solar energy has tend for an explosive growth slowly overtaking coal generated power generation. At present solar as a source of energy accounts for approximately 4% of India's electricity generation and coal close to 70% (IEA. 2021). By 2040, this scenario can be changed by India concentrating more on renewable sources of power generation. India can reach the target of 450 GW of renewable capacity by 2030. Also India has cost competitiveness in terms of solar energy, which out-competes *existing* coal-fired power by 2030. Innovative approaches along with investments in renewables like solar power should be promoted to meet India's energy needs, through applications such as rooftop solar, solar thermal heating, and water pumps etc. The projections shows that the investment in renewable sources of energy like solar energy tend to increase by 2030. Solar PV capacity also tend to increase even though the demand for coal is also increasing (See Fig 2).

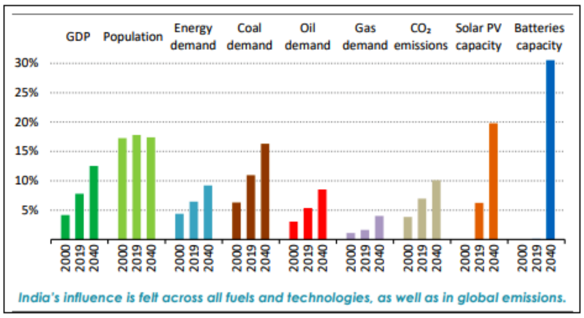
Figure 2: Annual average clean energy-related investment and activity indicators by sector in the SDS[2]



Source: World Energy Outlook 2021

In order to achieve sustainable energy usage, India should slowly reduce the dependency on non-renewable energy sources and shift towards more of renewable energy. India can make use of the renewable energy sources which is abundant in our country to its advantage. Cost effective technology and investment should be promoted so that renewable energy can be made available to all sections of population at a competitive price. India should try to reduce its dependency on fossil fuels and concentrate more towards the usage of clean energy.

Figure 3: India's share of selected global indicators in the STEPS[3]



Source: World Energy Outlook 2021-Special Report on India, IEA

Conclusion

Access to affordable and reliable electricity is critical to a country's growth and prosperity. Greater reliance on renewable energy sources offers enormous economic, social, and environmental benefits and can help in sustainable energy usage. India which is rich in renewable sources of energy like wind and solar energy should utilize this advantage to achieve an explosive growth overtaking coal generated power sector. The study stresses that Innovative approaches along with investments in renewables like solar power should be promoted to meet India's energy needs, through applications such as rooftop solar, solar thermal heating, and water pumps etc. As rightly pointed out by the Indian Prime Minister Mr. Narendra Modi at the climate conference in Paris in 2015, the world must turn to the sun to meet its future energy demands. The Cochin International Airport Limited (CIAL) in Kerala became the first airport in the world which operates entirely on solar power. CIAL has set an example and confirming the belief that India can rely on solar power and achieve clean energy usage towards achieving sustainable development. Sustainable growth concentrating on renewable energy sources can be an alternative as India progress towards its projected growth path without hampering environmental sustainability.

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[2] The **Sustainable Development Scenario** explores how India could mobilise an additional surge in clean energy investment to produce an early peak and rapid subsequent decline in emissions, consistent with a longer-term drive to net zero, while accelerating progress towards a range of other sustainable development goals.

[3] The **Stated Policies Scenario** (STEPS) provides a balanced assessment of the direction in which India's energy system is heading, based on today's policy settings and constraints and an assumption that the spread of Covid-19 is largely brought under control in 2021.

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7. https://mea.gov.in/articles-in-indian-media.htm?dtl/13586/Lighting+up+with+renewables

'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Educational Level of Parents and Its Effect on Hb level of early adolescent Girls

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Introduction

Early adolescence is the second critical period of life in human beings with rapid physical growth, changes in body composition, physiology and endocrine. Rapid physical growth and changes in body composition heighten their nutritional requirements to avoid risk of under nutrition. In Adolescence, girls have a rapid increase in both muscle mass and blood volume. The menstruation adds nutrient burden so it is important in adolescence to get proper food and good nutrition essential for survival, physical growth, mental development, performance and productivity, health and well being of adolescents' girls. The current nutritional status of early adolescent girls will decide the well being of the present as well as the future generations. Under nutrition among these girls is associated with reduced lean body mass, lack of muscular strength and decreased work capacity.

Objective of the study

The objectives of the present study are: -

1. To correlate parent education level and its relation with Hb level of early adolescent Girls.
2. To evaluate the nutrition status of selected adolescence girls.
3. To find out dietary consumption pattern of early adolescent girls.

Methodology of Study

The present study comprises of assessing the nutritional status and Hb level of 300 adolescence girls belonging to 13 to 15years of age group and their Parents Education level. Information regarding adolescent's girls was collected by personal interview by the researcher with a pre-planned questionnaire. Hemoglobin estimation was done by the Sahli's method.

Result

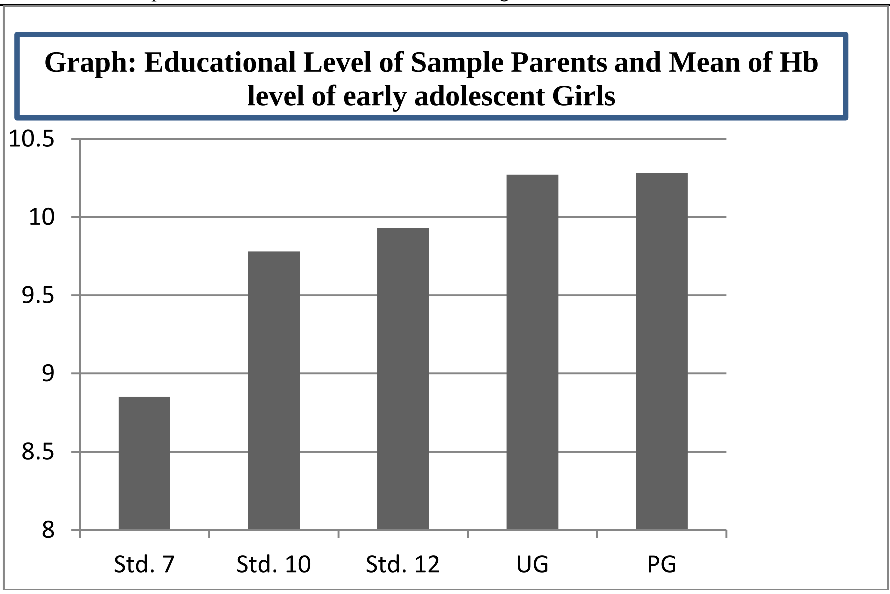
Literacy level of family members of participant adolescent girls given in Table No. 1. 39% families have their literacy level up to secondary school level and near to 34% families have literacy up to secondary school level education. Only 20% families of participant of adolescent girls have college level education and 7% families have university level education. The correlation between parental education and girl's hemoglobin is higher than higher education and proper hemoglobin levels. It was seen that whose parents are highly educated in that girls the hemoglobin level was found to be good. Table no.2 shows educational level of parents and mean of Hb level of early adolescent girls.

Table No. 1: - Distribution of sample is according to Parental Educational Level.

Educational Level	Sangli (N=279)	Percentage	Kolhapur (N=300)	Percentage
Std. 7	17	6	14	5
Std. 10	94	33.69	95	32
Std. 12	95	34.05	110	37
U.G.	56	20.07	59	20
P.G.	17	6.09	22	7

Table No. 2: - Educational Level of Sample Parents and Mean and Standard Deviation of Hb level of early adolescent Girls

Education Level	MEAN	SD
Std. 7	8.85	0.564129
Std. 10	9.78	0.618206
Std. 12	9.93	0.62491
UG	10.27	0.628748
PG	10.28	0.693507



Discussion

This study examines relationships between Parents educational level, their nutrition knowledge, adolescent's dietary intake and Hb level of adolescent's girls. Lack of nutrition knowledge does impact on diet of adolescent girls. Many studies reveal that in developing countries, anaemia is likely the largest nutritional problem in adolescents. Iron deficiency is the most widespread form of micronutrient malnutrition. Adolescents need to be included in presented anaemia, and iron (and folate) programmes of the health sector the health of adolescents, with the focus on improving knowledge, skills, access to counseling and health services, and safety and support of the environment. An adolescent who are found to be at increased nutritional risk should be assessed in greater detail to determine the specific nutrition related behaviors, that need to be addressed through education and counseling. Health educations strategies focus on health risks are therefore unlikely to be effective in adolescents. Television and other multimedia were an important source of information on food and nutrition, along with parents and schools. The coverage of educational systems is larger than the health system for school-age populations, at least in urban population. Strives to improve the health of school personnel, families and community members as well as students; and works with community leaders to help them understand how the community contributes to health and education. The present study focus on parent's educational level of early adolescent girl's and nutritional status of early adolescent girl's and its impact on their health status which has direct impact on the quality of the future generation.

Recommendation and Suggestions

Nutrition awareness in adolescent girls and their parents and its impact on adolescent's health should be assessed.

1. Use the multimedia (Which is very effective source) for give the nutrition knowledge to adolescents and their parents.
2. Made pamphlets on nutrition and diet and distributes these through schools and anganwadis to adolescent girls and their mother for awareness about food and nutrition.
3. Invention of low cost food sources and combination of foods for prevent anemia in adolescent girls.
4. Awareness must be created among the school and college students regarding junk food and its impact on health.

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SOCIO-ECONOMIC STATUS OF WOMEN IN GANIGA COMMUNITY

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Abstract

The time has come where both in the developing and advanced countries there is a need to study the factors which retard or accelerate social change In the developing countries overweighed with age-old and unexamined traditions with the attendant consequences of confusion and cultural inertia it 1s imperative that scientific study be directed to the problem of social change In India, we are presently passing through a crucial period of social change as never before Old social order is being challenged by the new modes of life. Serious efforts to study the Ganiga community have not been made so far. The community which has been traditionally following the oil squeezing occupation has changed over to different occupations because of the changes that have been coming out in society. Significantly large population of Ganigas is concentrated in Karnataka and hence the need was felt to study the community and various changes which are affecting this community. The Ganiga community is treated as backward class, by the State which enjoys certain benefits sanctioned by the State and Central Government. in general the word backward class includes several communities based on certain criteria and are given certain benefits by the state.
Key words ; Ganigas, oil, Industry, status, socio-economic, Status Etc..

Introduction

India is a Country of Pluralism or Multi culture. The society is moving with its own History because it has so many communities in its womb. In a conventional society we can see many communities are preserving their identities. Many communities are following the same norms and conventions but some are undergone investable traditional changes in the modernized world. Among those Ganiga Community is the one which is trying to retain its originality. Ganiga community identified with its Occupation not by its caste. It is moving along with its occupation and preserved its uniqueness. We can also find women also contributed a lot and worked hard in this profession. Now we have to study how these women find an alternative profession when this occupation was far away and ganas meant only for pooja ceremony. Not only this, but also to find how to find the footsteps of this occupation based communities. It is necessary for us to study the past and present condition of these women and also the life which they have lead in all these years. It is also necessary for us to recall and narrate the story of the life of these communities lived. How once a rich community, which stepped along with cows, extracted pure oil, maintained its purity for the sake of people's health and lead its life when they stepped out of their traditional occupation and tried to retain its identity. And this study aims at specially the women who encountered the modern age and the changes followed by it.

Orgion Of The Word Ganiga

The word Ganiga is derived from two words Gana and Ega. The Ganiga word is formed by adding suffix ega to the word gana.The people who involved in this profession are called Ganigas. Ganigas claims that they belong to Suryavamsha. They found in all parts of India.

Hypothesis of the Study

Ganiga Community Women are leading socio-economically good life.

The Ganiga Community women are dependent on Conventional occupation.

Purpose of the Study

There are many communities in Karnataka itself. Although originally made of oil, these groups do not blend into each other's blood today. After the Industrial Revolution, it became necessary for the Ganiga community to move away from their original occupations. His knowledgeable heritage was defeated in front of large oil producing factories. The question is how this community has retained its socio cultural identity in such a dilemma. Some people in this community today, even in the smallest degree, are working with the oil fields. However, most people come out of their origins and engage in different jobs. This study aims to see whether the community has preserved or transformed its heritage from these shifts in the Ganiga community.

The purpose of this paper is to study Ganiga women who were settled in various geographical areas as Sajjana ganiga, jyothi ganiga, kariganiga, enneganiga.

Main purpose is to identify the social, economic, status of ganiga community women and to encounter them with contemporary social situations.

To identify the barriers that is in the empowerment of Ganiga community women.

Review of Literature

Thomas Georgea, K R Rajanib, 2018, Lingayts of Karnataka: A Twelth Century Social and Religious Reforming Movement in Hinduism, Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN 2249-9598, Volume-08, Nov 2018, Special Issue, 02. in this Articals mentions the Ganiga caste, Oil Pressers (Ganiga) - "A subgroup of the Lingayat, the Ganiga are distributed in the

Belgaum, Bidar, Nijapur, Nellary, Dharwad, Chitradurga, Gulbarga and Raichur districts of Karntaka. The Kannada term aniga means oil presser, and has been derived from the term gana or oil crusher. Though the traditional occupation of the Ganiga Lingayat is oil pressing, they are also engaged in agriculture, animal husbandry, business, trade, service, self-employment and wage-labour. A traditional caste council exists among them, headed by a daivantharu" (Thomas Georgea, K R Rajanib:2018:235-236). http://www.oiirj.org/oiirj/nov2018-special-issue(02)/33.pdf

Janaki Ramaiah, G, 1996,"Social Change among the Gandlas" In Chittoor District, Ph.d Thesis Submitted by Venkateswara University, Tirupathi. The people belonging to this community are called as "GANIGA" in Kannada Correspondingly in Telugu they are called "GANDL" and in Tamil as VANIYANS The name GANIGA is derived from the word "GANUGA" meaning an oil mill This caste is divided into three sub sections None of them interdine nor intermarries with others Ganiga further occurs as an occupational name for Lingayat oil vendors, and for Mogers who are employed as oil-pressers. The "GANDLAS are subdivided into HEGGANIGAS who yoke two oxen to a stone oil mill, "KIRGANIGA" and squeeze oil from oil seeds by crushing them in the motor The other one is "ONTIYEDDU GANIGA", where one animal is used for crushing and squeezing oil They are collectively known as "JOTI PANS", or "JOTI NAGARAMS" The GANDALS are identified with different names in different regions In Coastal Andhra, they are called as "TELIKILA" and in Telangana they are called as DEVAGANDLA and in Rayalaseema they are called as GANDLAS" The sub sectlon 'Ontiyeddu Ganigas' are again sub divided into 'Devaganigas' and 'Sayyanaganigas' Even these two sub sections are not allowed to Interdine or Intermarry" (Janaki Ramaiah G:1996:16). (http://hdl.handle.net/10603/70878).

Scope

The scope of a study explains the extent to which the research area will be explored n the work. As a researcher we have to define our scope or area of focus. For this we have chosen the ganiga community women in selected villages of various districts.

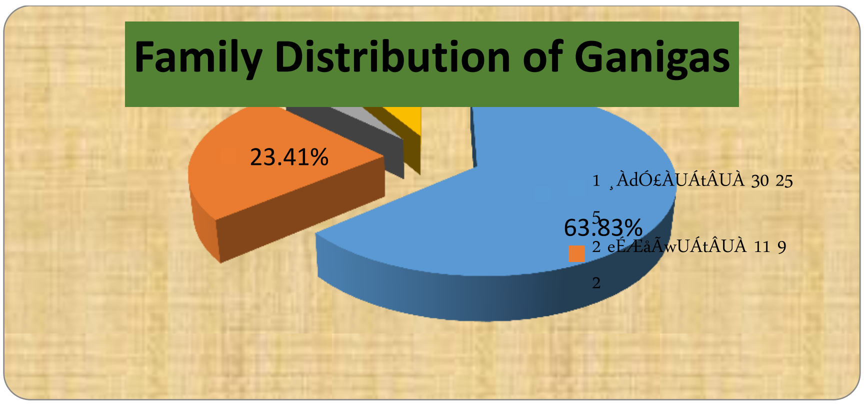
Research Methodology

Fundamentally it is a descriptive and analytical study. Secondary sources like Interview, Questionnaire, and participatory research are followed to get the information. Status Of Women In Ganiga Community Ganiga women are not only performed their House hold chores but also involved in the extraction of oil from the Ganas which are the back bone of their houses. Social Status Man is a Social animal. While living in society he has to live with the societal norms and ways. In the same ways he has follow norms and ways in family also.

SL NO	SUB CASTES	FAMILIES	PATRIARCHAL	MATRIARCHAL	PERCENTAGE
1	SAJJANA GANIGA	30	25	05	63.83
2	JYOTHI GANIGA	11	09	02	23.41
3	KARE GANIGA	02	02	-	4.25
4	ENNE GANIGA	04	04	-	8.51
5	TOTAL	47	40	07	
	TOTAL PERCENTAGE		85.10	14.90	100%

TABLE: 1.1. FAMILY SYSTEM OF GANIGAS

Pie Chart: 1.1.1 Family Distribution of Ganigas



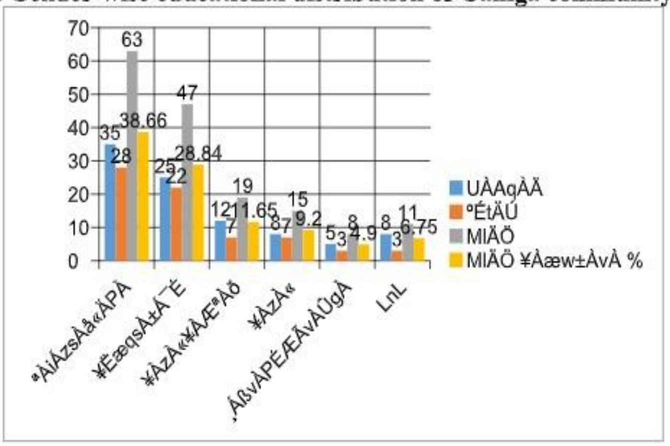
Patriarchal Family system is practiced in Ganigas and its sub castes. In the above chart patriarchal system is in 25 families of Sajjana Ganigas and 05 Families are practicing Matriarchal Family system. Men are the Head of the families before the Matriarchy. Women in the family had to inevitably held the responsibility of the Family after the Death Men, who are the head of the families. In Matriarchal Family system Woman is the head and prominence is given to her in all the familial matters and accounts (Kavitha Rai:2007:28). Many Sociologists like Spencer, Taylor, Morgan Brie fault called it as "Matriarchal Family system because Woman's role in the birth, growth and nurturing of the child"(Hirematha S J:1995-96:31-32). In Jyothi Ganigas 9 families are practicing patriarchal and 02 families are practicing matriarchal Family system. In the same way Kare ganiga and enne ganigas are all practicing Patriarchal family system only. Matriarchal Family system is very less in Ganigas. Man, who is the head of the family manages everything. Nuclear and Joint Family is also there in them.

EDUCATIONAL STATUS

Table:1.2.1 Gender-wise educational level of surveyed Ganiga community

SL NO	EDUCTION LEVEL	MALE	FEMALE	TOTAL	TOTAL PERCENTAGE
1	PRIMARY	35	28	63	38.66
2	HIGH SCHOOL	25	22	47	28.84
3	PUC	12	07	19	11.65
4	GRADUATION	08	07	15	9.20
5	POST GRADUATION	05	03	08	4.90
6	ITI	08	03	11	6.75
	TOTAL	93	70	163	
	TOTAL PERCENTAGE	57.05	42.95		100

Pie Chart: 1.2. Gender-wise educational distribution of Ganiga community



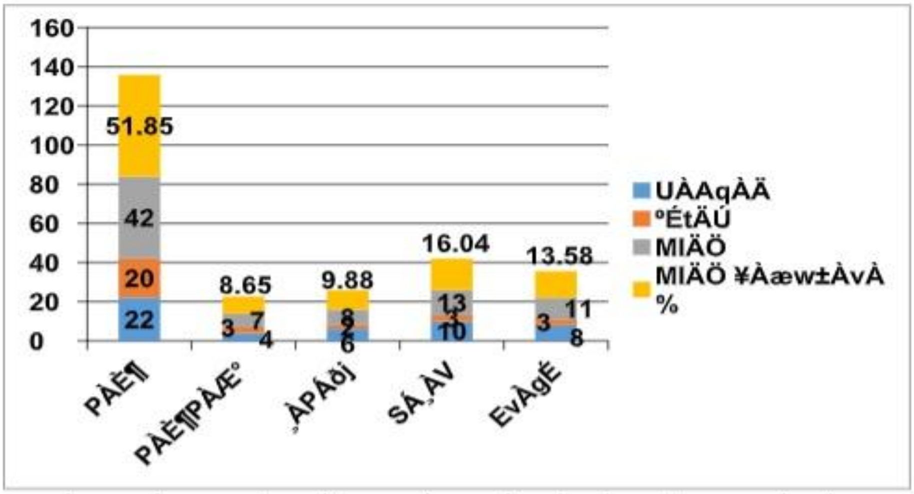
In Table 1.2 , 6th to 8 is considered as Primary , 9th to 10th is high school and 11th to 12th is considers as PU Course. Later is called as Under Graduation, Post graduation and ITI. As per the Survey conducted in various parts of Karnataka total 63 children are studying in Middle School. In this 35 students are Boys and 28 are girls. From 8th to 10th in High school 47 students are studying. Among them 25 boys and 22 are girls. In PUC 12 boys and 07 girls, total 19 students are studying. 15 students are pursuing B.A. and B.Com. In this 08 Males and 07 Female students. Only 08 students are pursuing Post graduation. In this 05 boys and 03 girls. In ITI 08 boys and 03 girls are getting Technical Education. Through survey we can find Total 163 students are pursuing studies. Among this 93 are boys and 70 are girls.57.05 of Boys % and 42.95% of girls are getting Education. The main thing about this is, though 25 boys and 18 girls total 43 students under the age of 0- 05 are studying in Primary they are not considered for Literacy (According to Indian Government).In the same way 43 students, the students who dropped their education in the primary level and those who can read only are not considered in the Table.

Economic Status

TABLE: 1.3.1 Gender wise occupation villages of surveyed Ganiga community

SL NO	OCCUPATION	MALE	FEMALE	TOTAL	TOTAL PERCENTAGE
1	AGRICULTURE	22	20	42	51.85
2	WAGE LABOUR	04	03	07	08.65
3	GOVERNMENT	06	02	08	9.88
4	PRIVATE	10	03	13	16.04
5	OTHER	08	03	11	13.58
	TOTAL	50	31	81	
	TOTAL PRCENTAGE	61.73	38.27		100

Pie Chart: 1.3. Gender-wise occupation of Ganiga community



For the study we have choosen 07 villages from the Ganiga Community in Kudligi Taluk of Vijayanagara District. Through Questionnaire method extracted the information of 47 families from 7 villages. 44 % of men and 64.51% of women are practising Agriculture as their basic occupation. Total percentage of me and women who are involved in this occupation are 51.85%. The percentage of Men who have chosen Agriculture as their occupation is 8% and the women are 9.67%. Total 8.65 % of men and women are in this occupation.12% of men and 6.45% of women are working in Government Sector. Total 9.88 % of Ganiga community members are in Government sector. Those who are working in private sector are 19.04 % in this 20% are Men and 9.67% are women. Other small trades and occupations are total 13.58 and in those 16% women and 9.67% are men. As ages passed this community adopted agriculture as Occupation. Nowadays the Educated are preferring Government Jobs. As the education of women is less, they are working as house maids. Most importantly the children who are under 6 to 17 age are not considered here for Occupation.

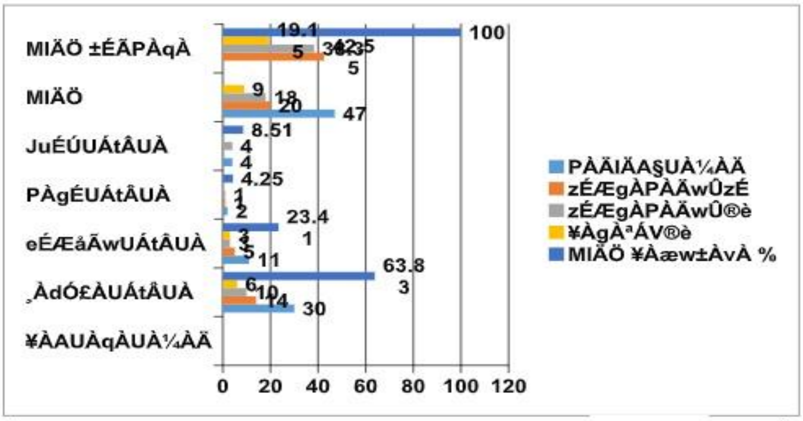
POLITICAL STATUS

TABLE: 1.4.1 ABOUT THE RESERVATION CONVENIENCE FOR GANIGAS

SL NO	SUBCASTES	FAMILIES	GETTING	NOT	FOR	TOTAL PRCENTAGE
1	SAJJANA GANIGAJ	30	14	10	06	63.83
2	JYOTHI GANIGA	11	05	03	.03	23.41
3	KAREGANIGA	02	01	01	-	4.25
4	ENNE GANIGA	04	-	04	-	8.51
	TOTAL	47	20	18	09	
	TOTAL PERCENTAGE		42.55	38.30	19.15	100

Chart: 1.4. RESERVATION CONVENIENCE FOR GANIGAS

Chart: 1.4. RESERVATION CONVENIENCE FOR GANIGAS



According to Sajjana Ganigas Government has given 2A Reservation for Ganigas. But to get that Reservation they need Caste and Income Certificate. But they are not getting that. Ten Families of Sajjana Ganigas are saying like that. Remaining 14 families of sajjana ganigas are doing petty job and getting education. And other 9 families are having the opinion that ‘we have reservation, but we try to get it’. And to get various facilities the reservation had helped them and some of them are satisfied with it. In jyotiganigas, 05 families are getting the reservation, and the 03 families are having the opinion that they are not having the reservation at all. And 03 families are okay with it. And they have also got some government facilities. In Kareganigsa only one family is getting the reservation and another one is not having anything. In the same way when we asked the 04 families of Enneganigas , they are saying they are not getting any of the government facilities.They don’t even have the Ration card, caste and income certificates. Though they have mentioned as Enne ganigas while admitting to the school also, we are not getting the caste and income certificates. We were extracting the oil from the ganas so are called as Enne ganigas. When they left the Gana occupation, for the sake of prestige and as our parents were not educated enough they have entered the caste as Lingayata. And we truly belong to Enne ganigas.So we are not getting the ganiga Reservation. Despite of all this we have mentioned our children’s caste as Ganigas. Because of this though we have all the facilities, we are unable to get this. “Government has decided this as Backward section based on its Educational, Social, Political, Economic condition. The population of this community is bit larger than any other backward community. The population has to mention in the Census. Then our Community people will get More number of Reserved seats.”(Jayabasava swamigalu: 2015:258)

Study Outcomes

1. Ganigas are distributed in Kudligi Taluk. Only one or Two Ganiga families are found in 4-5 villages. This is seen as scientific one means ganigas are stayed to sell and produce the oil for 4-5 villages.
2. Ganigas have left their traditional Occupation. Educated are not showing interest in this. And they don’t have strength to compete in this mechanical world. This is a unique occupation.
3. Matriarchal Family system is very less in Ganigas. Men manage the Familial affairs. They have both Joint and Nuclear Family. Nuclear Family is more in Ganigas.
4. In Kudligi, women in Sajjana Ganiga community are dependended on Agriculture, Kare ganigas are doing small trades and Enneganiga’s women are selling oil till day.
5. Ganigas are facing problem in getting Caste and Income certificate. Ganigas facing difficulty to get 2a certificate, so they could not come to Politics.

Suggestions

The government and Community has to increase Reservation encourage as to encourage Ganiga women enter into politics.

The Other Backward Welfare Commission has to make programs to make them self employees and independents.

Government should economic aid to women to start small scale Industries and to provide Market for the Goods which they have produced.

Society and Government has to identify the Children who are deprived of Education and encourage them to continue.

Government has to instruct the Taluk Magistrate officers to get the Caste certificate easily and the Community has to pressurize the Government to do the same.

Government has to identify the Traditional Compressed Oil Industries and protect them providing the Loan facilities.

Higher Education is helpful for the Psychological development, encourage the education of that community including women.

Conclusion

Totally women in Ganiga Community are struggling to get Higher education by facing all the hurdles and to live independently. They are practicing their traditional occupation and also doing small trades and occupations. And also trying to overcome the situations like dependency on men for money. They are expecting the support of family to enter the Politics. Along with this she is also trying to create her identity in the society by practicing the Compressed Oil Industry.

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A Study on Effectiveness of Google Pay Application among Students

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DOI- 10.5281/zenodo.7052657

Abstract

Digital payment system is gaining popularity due to the 'Digital India' campaign introduced by the government of India. Through this article it aims to provide a simple evaluation of effectiveness of Google Pay application in the students. This article has relevance as it is concerned about awareness level among students, security issues while using digital payment applications, satisfaction level and popularity enjoyed by them and security concerns they have while using Google Pay. The government is taking initiatives to move the country towards a cashless 1 economy and increase the use of digital transactions. The main motto of the Indian government is to make the Indian economy 'Cashless, Faceless, Paperless 2 '. The spread of digital payment usage varies unevenly between countries partly due to difference in factors such as quality of regularity framework and readiness of telecommunication infrastructure, marketing capabilities, trust, ease of use etc.

Keynotes: Digital payment, Google pays, cashless economy, Digital

Rationale of the study

The study on effectiveness of Google Pay application helps to identify the attitude towards Google Pay as a digital payment system. It shows the awareness level of students towards the digital payment applications in general. The study helps to identify the problems and security issues faced while using Google Pay application. Altogether it shows the level of effectiveness of Google Pay application among students.

Objective of the study

1. To know the familiarity of digital payment applications among students.
2. To understand the satisfaction level about the usage of Google Pay Application.
3. To know about the attitude towards the security issues while using Google Pay application.
4. To identify the preference of Google Pay application among other Digital payment Applications.

Hypothesis

Wide acceptability of Google pay from digital payment system.

Satisfactory level of students by using Google pay.

Security issues faced by students while using Google pay.

Research Methodology

The area of the study has been confined to only students. The methodology used in the study involves collection of data through primary and secondary sources.

Research Design

The present study is descriptive in nature. The major use of descriptive research is explanation of state of affairs, as it exists at present.

Population

The population of the present study includes the students.

SAMPLING AREA

The data for the study collected from students in college.

Sampling Unit

The students from college are the sampling unit for the study.

Sample Size

In this study, 60 numbers of students were selected as sample out of the total population.

SAMPLING DESIGN

The sample of respondents for the study was selected by using convenient sampling technique.

Sources Of Data

Primary Data

The primary data for the study were collected from various categories of 60 sample respondents by distributing questionnaire.

Secondary Data

The secondary data for the study were collected from various printed publications and from the online media.

Tools For Data Collection

The present study was conducted in college and the primary data were collected by distributing questionnaire among students to evaluate the effectiveness of Google Pay application.

Tools For Dataanalysis

The tools used for data analysis are:

Comparative Analysis[1]

Percentage Analysis[2]

[1] Comparing items to one another and distinguishing their similarities and differences

[2] Dividing the value by the total value and then multiplying the result by 100

In this study tables, charts and diagrams are also constructed and presented for interpreting the results of the study.

Suggestions

There are still few respondents who prefer traditional mode of banking[3]. So proper awareness about online banking should be provided.

As the future of payments depend upon digital payment systems, the familiarity of digital payment systems needed to be improved among the younger generations like students.

Google Pay application still lacks some features. So, it should be broadened enough to use all features conveniently.

There is a tight competition among the digital payment applications. Therefore, Google should advance the functioning of Google Pay application which will helps to increase the satisfaction of users.

Proper awareness about Google Pay security issues should be given to people who lack awareness.

Banks should provide support to Google Pay users when any kind of fraudulent activities[4] happened to its users.

The security of Google Pay further needs to be improved to protect its users from security threats.

Conclusions

This study shows that Google Pay application has a wide acceptability among the students and most of them prefer Google Pay application than other digital payment applications like Paytm, PhonePe etc. The students who use Google Pay are satisfied with the application and its services and they have a better knowledge in security threat mitigation. But the lack of awareness in Google Pay security issues caused the students to experience such issues like cashback / refund fraud, phishing, etc. Hence the study stresses on that they should be vigilant while using Google Pay as well as performing online transactions. According to the findings of the current study, Google Pay is a widely used digital payment application among students and it helps them to make payments easily. Therefore, the study can be concluded that Google Pay application is very effective among students.

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[3] Banks with physical presence
[4] Phishing,spoofing etc

Examining Long run Relationship among Health Status, Health Expenditure and Income in India: An Empirical Analysis with Co-integration Approach and Error Correction Mechanism

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Abstract
From the early 1990s, it has been seen that economic growth and health status are interdependent. Keeping this in mind this chapter attempts to examine the economic impact on health sector by dealing with various issues pertaining to the association among health status, health expenditure and income. Taking time series data from 1961 to 2013 this chapter tries to find out whether public health care spending is considered as "care" or "cure". With the help of co-integration approach and error correction mechanism this chapter examines whether any long run relationship prevails between public health care expenditure and income; between health status measured by Infant Survival Rate and public health care spending; lastly between health status and income. During this short-run healthcare expenditure-income analysis some interesting insights into health policy and health financing emerges which reflects that health care needs are regarded as normal as well as necessary commodity in India. The present study finds a very positive impact of economic reforms and globalization on the relationship between public healthcare spending and income. It is observed that long-run relationship exists between public health care expenditure and income for the time period from 1961 to 2013. But any long-run relationship between infant survival rate and health expenditure as well as income for the same period is not found. The present empirical study also establishes that health related investments must be much higher in developing country like India to augment economic growth and ensure equity.
Key Words: Public Health Care Expenditure, Engel's coefficients of elasticity, Cure, Long-run relationship, Error correction mechanism

Introduction

From the early 1990s, the interdependence between economic growth and health status is observed. The levels of human capital (comprising health, education and skill) ensures Sustained economic growth. Better growth outcomes are registered by better health. Ensuring a long, healthy and fulfilling life of each and every individual is the main challenge of 21st century to ease out the process of their participation in the various activities of their community. With a view to promote sustainable development, poverty alleviation and eradication of other human deprivation were among the major targets of Millennium Development Goals in 2000 signed by 189 countries. India has wide range of health and socio economic diversity across the states. The correlation among health status, health expenditure and income is of paramount importance in India. Populations live better and longer lives and possess good health with the process of sustained economic growth. Firstly, with the rise of economic growth, percapita income rises. A part of this increased income is spent for the consumption of nutritious foods. Well nutrition, increses life expectancy through which health responds to income growth [Fogel 1997]. Secondly, medical science is improved by technological progress which fuels the economic growth [Rosen 1993, Morand 2005]. Economic growth of a country is affected by its health status through multiple channels. Improved health situation generates higher output along with education and technological advancement. Health is treated as one of the prime factors of human capital for formulation of endogenous growth models [Barro 1991, Mankiw et al 1992, Thomas et al 1997, Bloom et al 2001]. Central to these long-term growth models is the idea that technology is endogenous to the growth process [Romer 1986, Lucas 1988]. Higher human capital investment leads to higher educational attainment and better socio economic status of health which augments growth. On the other hand, larger investments in human capital is encouraged by higher life expectancy at birth leading to rise in per capita income. Stark [1995] offers the mechanism of intergenerational transfer of assets through which longer life expectancy leads to larger investments on human capital. Higher educational level and better health status evolve systematically in accordance with the economic development of an economy. Availability of public health care facilities helps the poor toward releasing resources for other investments. The interlinkage between health and socio-economic status is one of the major areas of today's research findings in health economics. A positive relationship between socio-economic status and health has been observed across the countries in the world at different time periods[Berkman 1988, Marmot et al 1991, Feinstein 1993, Deaton et al 2001, Deaton 2003]. Education could induce better health behaviors or income. Healthier populations generates higher labor productivity, through creation of physically more energetic and mentally more robust labour force and reduction of suffering from illness of the workers which in turn reduces absenteeism in the work place.

As levels of education and health rise, rate of investment also tends to increase as implied by the human capital component. These components evolve systematically in accordance with the levels of economic development. Therefore, such changes lead to raise the rate of investment. Thus, accumulation low levels of human capital impedes competitiveness and acts as constraint to economic development . Appropriate policy formulation is needed for better understanding of mechanisms in the context of the process of human capital formations to ensure sustained economic growth.

Objective of the Study-Associated Research Questions

The interlinkage among health, health care investment and income helps us to understand the causality between income and demand side of health. In the context of health policy and health financing issues my present study of health care expenditure and income analysis is expected to provide some interesting insights.

During the course of this study a number of research questions have been arisen which are to be examined such as –

1) Whether the public healthcare spending is considered as "care" (denoted as luxury good) or "cure" (being a necessary good)?
2) Whether any long run relationship prevails between public health care expenditure and income; between health status measured by Infant Survival Rate (ISR) and public health care spending; lastly between health status and income.

The Data and Methodology

The data on public health care are drawn from National Accounts Statistics (NAS). The department of statistics, planning commission published every year data on household health care expenditure – private and public final consumption expenditure based on estimations done by National Sample Survey Organization (NSSO) in National Accounts Statistics. The per capita Gross National Product (PCGNP) of India over the periods from 1960-61 to 2012-13 was collected from Reserve Bank of India Bulletin (various issues), NAS. The health care expenditure as well as GNP is measured in real (at 1993-94 prices) per capita terms. Data source of Infant mortality rate (IMR) is sample registration system, Govt. of India, from which ISR have been calculated. The variables are measured in natural logarithm. Here income is measured by percapita GNP (PCGNP) and health expenditure is measured by per capita public healthcare expenditure (PCPubHCE).

Income elasticity of public health care expenditure over the period from 1961-2013

With the estimation of Engel's coefficients of elasticity, I have tried in my present study to find the answer of first question. how does Govt. investment in health care change over the periods given a similar change in income levels is obtained by the value of Engel's coefficients of elasticity of two concerned variables. There are various alternative specifications of the equations which can be considered to estimate the Engel coefficient. The double logarithmic equation is specified as,

$\ln(PCPubHCE) = A + B \ln(PCGNP) + e$ …………..(1)

B in the above equation is interpreted as the Engel coefficients of elasticity.

A is intercept term and e is the error term.

Using double logarithmic of equation (1), coefficients of elasticity are estimated here and they are given in Table 1. Estimates are made considering per capita expenditures.

Table 1: Engel's Coefficients of Elasticity of household expenditure on health care (1960-61 to 2012-13)

Elasticity of	To	Coefficient	t-Value	R-Squared	DW Statistics
PCPubHCE	PCGNP	0.386	19.39	0.880	0.131

Note : The above tables are formed based on National Time Series Data on public final expenditure in real prices(1993-94 base year).

Variables, their notation and definition:

PCPub HCE : Per Capita Public Health Care Expenditure.

PCGNP : Per Capita Gross National Product.

Longrun Association between PCPubHCE and PCGNP

Tests of Stationarity

The study involves the extensive use of time series techniques. The time series for PCPubHCE and PCGNP have been subject to tests for stationarity for which Augmented Dicky-Fuller Method has been adopted

Cointegration

I have used Engle-Granger (EG) approach for this purpose.

Table 2- Unit root checking for PCPubHCE time series (Period: 1961-2013)

		With Intercept	With Trend and Intercept
Level	ADF	3.3116 0.7941(with log)	0.0160 -2.6249(with log)
	Critical Value at 5% level of significance	-2.9190	-3.4987

Table 3- Unit root checking for PCGNP time series (Period: 1961-2013)

		With Intercept	With Trend and Intercept
Level	ADF	1.0091 2.3861(with log)	0.7024 -3.3343(with log)
	Critical Value at 5% level of significance	-2.9190	-3.4987

Table :4 Testing Stationarity of the variables with and without log

Variables measured in various forms	ADF Values: With intercept	ADF Values: With trend and intercept
PCPubHCE	3.3116	0.0160
Δ PCPubHCE	-3.6087	-5.2640
ln(PCPubHCE)	0.7941	-2.6249
Δln(PCPubHCE)	-7.6612	-7.9592
PCGNP	1.0091	0.7024
Δ PCGNP	-0.0296	-1.6672
Δ^2 PCGNP	-7.0229	-7.1682
ln PCGNP	2.3861	-3.3343
Δ(ln PCGNP)	-4.0512	-4.8183
ISR	0.2408	-1.7758
Δ ISR	-5.6175	-5.6437
ln(ISR)	0.1355	-1.7599
Δ ln(ISR)	-5.6790	-5.6765

Notes: 5% Mackinnon critical value for the rejection of hypothesis: -2.9190(with intercept); -3.4987(with trend and intercept): From the table 4 it is found that PCPubHCE is sationary at its first differenced series and PCGNP at its 2nd differenced series. PCGNP ~I(2) and PCPubHCE ~ I(1). The log values of all the variables are stationary at their first differenced series, ie, ln(PCPubHCE) ~ I(1); ln(PCGNP) ~ I(1); lnISR) ~ I(1)

Now I have checked the stationarity of the estimated equilibrium errors of the equation

$\ln(PCPubHCE_t) = = \alpha + \beta \ln(PCGNP_t) + e_t$……………………(2)

The longrun estimated equilibrium relationship,or the cointegrating regression is the following.

$\ln(PCPubHCE_t) = = 0.432 + 0.4539 \ln(PCGNP_t)$………………..(3)

t [8.234] [65.137]

R^2 =0.988, DW=1.860

Using [1, -0.432, -0.4539] e_t is estimated and saved. ADF value of e_t. is -4.913,where 5% critical value for rejection of the hypothesis is -1.947. We accept e_t is stationary, meaning thus the log values of the variables PCPubHCE and PCGNP are cointegrated or there exists a longrun relationship between these two variables.

Next I check whether there exists a longrun relationship between the log values of the variables ISR and PCPubHCE, taking the former as dependant variable.

$\ln(ISR_t) = \alpha + \beta \ln(PCPubHCE_t) + e_t$……………………(4)

The longrun estimated equilibrium relationship, or the cointegrating regression is the following.

$\ln(ISR_t) = 6.5827 + 0.0533 \ln(PCPubHCE_t)$……………..(5)

t [917.322] [29.887]

R^2 =0.956, DW=1.1828

ADF value of e_t. is 3.4985,where 5% critical value for rejection of the hypothesis is -1.949. we accept e_t is nonstationary,meaning thus log values of the variables ISR and PCPubHCE are not cointegrated .

Finally, we check the longrun relationship between the log values of the variables ISR and PCGNP.

$\ln(ISR_t) = \alpha + \beta \ln(PCGNP_t) + e_t$……………………(6)

The longrun estimated equilibrium relationship,or the cointegrating regression is the following.

$\ln(ISR_t) = 6.6O4 + 0.024 \ln(PCGNP_t)$……………..(7)

t [1159.74] [33.875]

R^2 =0.965, DW=0.677

ADF value of e_t. is -1.617,where 5% critical value for rejection of the hypothesis is -1.949. we accept e_t is nonstationary,meaning thus log values of the variables ISR and PCGNP are not cointegrated or there doesnot exist a longrun relationship between these two variables.

Cointegration: the estimation of the error correction models (ECM)

'Granger representation theorem'(Granger,1986:Engle and Granger,1987) suggests, the variables exhibiting longrun relation may be in disequilibrium in short run, with the disturbances being the equilibrating error e_t. This shortrun disequilibrium is described by an 'error correction model'(ECM) introduced by Sargan(1964).

Estimating an Error Correction Model Between log Values of PCPubHCE and PCGNP:

Log values of PCPubHCE and PCGNP both variable are cointegrated of order (1,1).

Step1

From the cointegrating regression estimated in equation …..(3),or

$\ln(PCPubHCE_t) = = 0.432 + 0.4539 \ln(PCGNP_t)$

t [8.234] [65.137]

$R^2 = 0.988$, DW=1.860

We get the residuals, e_t.

Step 2

One version of an estimated error correction model is the following.

$\Delta \ln(PCPubHCE) = 0.0255 + 0.1736\ \Delta \ln(PCGNP) - 0.952\ e_{t-1}$………(8)

t [1.365] [0.929] [-6.876]

$R^2 = 0.500$, DW=1.975

Here, the t-statistic 0.929 is not significant .So,we cannot argue anything regarding the short-run adjustment.

Summary and conclusion:

In this paper, the longrun relationship between health status(determined by infant survival rate ISR),health expenditure(public); and health status and income have been analyzed in a bi-variate framework using original data set as well as longitudinal data for 53 years from 1961 to 2013. With the help of the application of cointegration approach it has been found that the log values of the variables infant survival rate and public healthcare spending and income – all are integrated of order 1. But I have not found any longrun relationship between log values of infant survival rate and public healthcare spending ; log values of infant survival rate and income as estimated e series of the relevant equation has not come out to be stationary in either case. So it is clear from our present analysis that even though the two series is integrated of the same order,it is not necessarily true that they will be cointegrated or will exhibit a longrun relationship. However a long-run relationship between public health care expenditure and income has been found which suggest that Government should increase its investment in health care in accordance with the economic growth of India. Moreover, public investment in health care is treated as necessity (cure) rather than luxury(care) requirement. Inception of Research on investment in health or healthcare expenditure in India is very limited. But the importance of such research is being realized nowadays, especially in the area of gradually diminishing public budgets for health care and formulation of effective as well as alternative policies towards financing healthcare spending. A good number of effective public policies should be formulated based on the research evidence.

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Women Empowerment in India through Women Entrepreneurship

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DOI- 10.5281/zenodo.7052686

Abstract

Women entrepreneurship is the process whereby women takes the lead and organize the business or industry and provides employment to others. Entrepreneurship is the state of mind which every woman has in her mind but has not been capitalized in the way it should be. Women entrepreneurs engaged in business due to push and pull factors which encourage them to have an independent occupation and stand on their legs. A sense towards independent decision making on their life and career is the motivational factor behind this urge. Saddled with household chores and domestic responsibilities, women want to get independence. Under the influence of these factors, women entrepreneurs choose a profession as a challenge and as an urge to do something new. Women in India constitute 48% of the total nation At this juncture; effective steps are needed to provide entrepreneurial awareness, orientation and skill development programs to women. Resurgence of entrepreneurship is the need of the hour focusing on educating women strata of population, spreading awareness and consciousness amongst women to outshine in the enterprise field. In this background, this paper aims at discussing the growth, the factors influencing women entrepreneurship, the problems of women entrepreneurs in India and the suggestions for the problems hindering the growth and development of women entrepreneurship in India.

Key Words: Entrepreneurship, Women Entrepreneurship, Economic Independence, Women Empowerment

Introduction

Sakuntala Narasimhan, a Journalist quotes, “It is awareness, rather than conventional schooling or education in terms of degrees or classrooms, which makes a vital difference.” Modern age has lifted the veil of ignorance and the myth that a women’s place is in the home has been convincingly demolished. Although women’s status during Veda and Upanishad period was respectable but their position had deteriorated and even now women are seen harassed in many respects. Women were treated as property of men and any deviation from the norm was frowned upon and, if possible, immediately curbed. Our constitution gives equal status to women in relation to men and several provisions are there for their upliftment. Yet, women are not utilizing the laws properly. However, slowly and subtly, changes are creeping in. Women have been shifting to towns and cities, there is education and economic independence and doors are open giving her access to areas where she is growing and blossoming as a person in her own right. Women do have vast entrepreneurial talent which can be harnessed to convert them from the position of job seeker to job givers. Entrepreneurship itself has been recognized as a full-fledged profession and women entrepreneurship is an even newer phenomenon in India.

Due to increase in cost of living, it has become necessary for women to undertake economic activities and support their families. They have made their mark in business for the following reasons.

- They want new challenges and opportunities for self-fulfillment
- They want to prove their mettle in innovative and competitive jobs.
- They want the change to control the balance between their family responsibilities and their business lives.

Women play a very important role in the economic development of India. They involved in business activities at all levels, making significant contributions to economic growth. Nowadays, Indian women are increasingly active in parts of the economy that were previously considered male domain..

Women Entrepreneurship: Conceptual Framework

In nutshell, women entrepreneurs are those women who think of a business enterprise, initiate it, organize it, organize and combine the factors of production, operate the enterprise and undertake risks and handle economic uncertainty involved in running a business enterprise.

Factors Responsible For Encouraging Women to Become Entrepreneurs

Employment gives status and economic independence to women leading to women empowerment.. Women set up an enterprise due to economic and non economic factors. Various important factors can be due to motivational factors and facilitating factors which are listed below.

Motivational Factors:

(a) Economic necessity
(j) Developing risk-taking ability
(b) Economic independence
(k) Employment generation
(c) Self-actualization
(l) Family occupation
(d) Establishing their own creativity
(m) Gender freedom and mobility
(e) Establishing their own identity
(n) Government policies and programmes
(f) Equal status in society
(o) Success stories of friends
(g) Achievement excellence
(p) Role model to others
(h) Education and qualification
(i) Building self confidence

Facilitating Factors

(a) Adequate financial facilities
(b) Innovative thinking
(c) Self-satisfaction
(d) Co-operation of family
(e) Network of contracts
(f) Experienced and skilled people at work
(g) Support of family members

Measures for the growth and development of women entrepreneurship in India

The basic requirement in development of women entrepreneurship is to make aware the women regarding her existence, her unique identity and her contribution towards the economic growth and development of country. The following measures are suggested to empower the women to seize the various opportunities and to face challenges in business. There should be a continuous attempt to inspire, encourage, motivate and co-operate women entrepreneurs. Attempts should be there to enhance the standards of education of women general as well making effective provisions for their training, practical experience and personality development programmes to improve their over-all personality standards. Attempts to bring about a society attitude change, generation of awareness and consciousness on the policy of self-development of women entrepreneurs. Establishing various policies to offer easy finance schemes for economically strengthening the position of women. Forming a cooperative association of women entrepreneurs to mobilize resources and pooling capital funds in order to help the women in the field of industry, trade and commerce. Offering seed capital, upliftment schemes, women entrepreneurs fund to encourage them economically To extend concessional rate facilities and schemes for women entrepreneurs to prosper in the field of enterprise.

Conclusion

It can, thus, be concluded that women in India are no longer an abla and remain confined to within four walls of house. They are participating and performing well in all spheres of activities such as academic, politics, administration, space and industry. Efforts are on at the Government and voluntary agencies levels to tap the hitherto unrecognized and unaccounted for strength of women to integrate them in the process of industrial development, more especially small scale industry development in the country This paper can be concluded by recalling the statement made by Pandit Jawarhar Lal Nehru who rightly says, “When woman moves forward, the family moves, the village moves and the nation moves.” The task of women has become more tedious and full of challenges. Empowerment gives status and economic independence to women leading to an empowered woman. Let us all make efforts to help woman rediscover her.

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Effect of Dicofol Induced Alterations in the Protein Contents of the Fresh Water Bivalve, *Parreysia cylindrica*"

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DOI- 10.5281/zenodo.7052700

Abstract:-

In present investigation the effect of toxicity results are expressed as LC_{50} (lethal concentration) values. From LC_{50} values safe concentration of a toxicant can be determined. This is useful for the study of physiological responses to the toxicant in organism of dicofol on total protein contents in different tissues i.e. mantle, foot, gills, digestive glands, gonads and whole soft body tissues after chronic exposure The synthetic dicofol causes serious pollution problem in aquatic environment. The variation in protein contents in different tissues to dicofol of fresh water bivalve, *Parreysia cylindrica* was studied. The bivalves were exposed to (0.04023 ppm) as chronic treatment, decrease in total protein content of all tissues was observed with an increased exposure time. The most change of protein content occurs in digestive gland followed by gills, mantle, whole soft body and foot.

Key words : Dicofol , Protein content, *Parreysia cylindrica*.

Introduction:-

The Pesticide Survey, USA 1987 through 1996, reports that the total annual domestic agricultural usage of dicofol averaged about 860,000 ponds active ingredient for about 720,000 acres (2,900 km^2) treated. Most of the area is treated with 2 pounds a.i. or less per application, and the average acre is treated with about 1.2 pounds a.i. per year (1.3 kg/ ha/yr). Fruits tend to have the highest application rates. The largest markets for dicofol in terms of total pounds active ingredient are cotton (over 50%) and citrus (almost 30%). Although only about 4% of the cotton acres grown are treated with dicofol, over 60% of all crop acres treated with dicofol are cotton acres. The remaining usage is primarily on other fruits and vegetables. Most of the US usage is in California and Florida. Krishnamurthy and David (2010) studied the impact of dicofol on toxicity and behavioral responses of the fresh water fish, *Labeo rohita*. Gopala Rao *et al.*, (2006) studied the toxicity and effects of dicofol on the fresh water fish, *Channa punctatus.*

Several reports are available on the toxicity of organochlorine pesticides to fish species and other related animals. Doudroff *et al.*, (1953) studied the toxicity of some organic insecticides to the fish. Carndall and Goodnight (1962) studied the effect of sub-lethal concentrations of several toxicants of most commercially importance and common guppy fish, *Lebistes reticulate.* Eisler (1970) studied latent effect of insecticides to the intoxicant to marine mollusc. Arora (1971) have studied the bioassay effect of some commercially organic insecticides on exotic carp, *Punctius sophore* (Ham.). Arora *et al.*, (1972) studied the bioassay effect of six organic insecticides on freshwater fish, C*irhinus mrigala* (Ham.). Toor *et al.*, (1973) studied the toxicity of an exotic fish from a common carp *Cyprinsu carpio.* Reddy and Gomathy (1977) studied the toxicity and respiratory effect of pesticide thiodan on catfish *Mystus vitttus.* Rao and Murty (1980) studied bio-transformation and elimination of endosulfan on *Anabas testidineus.* Dalela (1980) and Dehadrai (1990) recorded significant metabolic stress from fishes The investigation regarding the biochemical changes after pesticide exposure and its subsequent recovery in non target aquatic species such as molluscs was insufficient. Hence in the present study an attempt was made to investigate the effect of chronic treatment of pesticide dicofol and its subsequent recovery by exogenous administration of L-ascorbic acid on the protein contents of different soft body tissues of fresh water bivalve, *Parreysia cylindrica*. Synthetic organic pesticides are used to control weeds, insects and other organisms in a wide variety of agricultural and non-agricultural settings. any undesirable change in the environment affects the protein level by changing the physiology of organism. Various toxicants like heavy metals, pesticides etc are known to disturb the protein metabolism in the body of organism. Young (1970) suggested that, dynamic equilibrium mechanism in the internal environment of organism changes the protein content of cell periodically by the degradation and synthesis. In aquatic bodies, these pesticides affect many non target organisms due to biomagnifications through food chains. Pickering and Henderson (1966) reported the acute toxicity of some pesticides to fish which indicate that several of these pesticides are extremely toxic and could represent a hazard to aquatic life. Pesticides and other toxic chemical cause such harmful effect on varieties of aquatic animals like frog, fishes, crabs, mussels etc (Rajagopalan, 2005). A major environmental impact has been the widespread mortality of fish and marine invertebrates due to the contamination of aquatic systems by pesticides. Most of the fish in Europe's Rhine River were killed by the discharge of pesticides, and at one time fish populations in the Great Lakes became very low due to pesticide contamination. It is evident that pesticides cause major losses in global fish production. Konar (1975) reported the mass mortality of commercial fishes due to washing Organochlorine insecticides by heavy rains in adjacent aquatic resources. According to Jhingran (1974), in India majority of fish population die due to water pollution and increased use of pesticides in agriculture. The poisoning by pesticides from agricultural fields is a serious water pollution problem and its environmental long term effect may result in the incidence of poisoning of fish and other aquatic life forms (Jyothi and Narayan, 1996). Owing to the excessive use of pesticides, the environment and water resource are being polluted, thus endangering aquatic life directly and human life indirectly (Gill *et al*., 1988). Dicofol is an organochlorine (OC), widely used alone or in mixture as an insecticide. It is differ from most other OPS in that it produces an insecticidal concentration of a vapor that make it promising for the control of malaria transmission. dicofol is used to control household, public health, and stored product insects. It is effective against mushroom flies, aphids, spider mites, caterpillars, thrips , and white flies in greenhouse, outdoor fruit, and vegetable crops (Meister, 1992). Therapeutically, Organochlorine is available in aerosol and soluble concentrate formulations. It is used as a fumigant (Meister, 1992) and has been used to make pet collars and pest strips (Hayes and Laws, 1990). Organochlorine is a broad spectrum insecticides that provides rapid beat down with short residual effect, which makes it safe and effective insecticide. It is soluble in water and contains an active in gradient dicofol by about 18.5%. The present investigation was aimed to study biochemical changes in the different tissue of fresh water bivalve *Parrysia cylindrica* after sub-lethal exposure to dicofol .

Materials and Methods:-

For the experimental studies the animals were divided into three groups

1. Group 'A' was maintained as control.

2. Group 'B' animals were exposed to chronic concentration (LC 50/10 values of 96 hrs) of dicofol (0.04023 PPM) up to 21 days

3. Group 'C' animals were exposed to chronic concentration of dicofol (0.04023 ppm) along with 50 mg / l L-ascorbic acid up to 21 days.

Experimental design for recovery studies : Set- II

Group 'B' animals from set-I were divided into two groups for recovery study

D. Animals pretreated to Dicofol were allowed to self-cure naturly in untreated fresh water up to 21 days .

E. Animals pretreated to dicifol, were allowed to cure in 50mg / l L- ascorbic acid in fresh water up to 21 days.

During experimentation animals were fed on fresh water algae. After every 7^{th},14^{th} and 21^{st} days of interval animals from set-I and set-II were taken out, dissected and tissues such as digestive glands, gonad, gills, foot, mantle were separated and whole body mass of remaining animals was taken. All tissues were dried at 70 – 80^0 C in an oven till constant weights were obtained. The dried powders of different tissues of control and experimental animals were used for the estimation of total protein components. The methods of estimation are as follows:

Protein estimation:-

Protein content of the tissues was estimated by Lowry's method (Lowry *et al.*, 1951).10 mg of dry powder was homogenized small amount of 10% TCA and the homogenate was diluted to 1o ml by 10% TCA. Then it was centrifuged at 3000 rpm for 15 minutes. The protein precipitate at the bottom of centrifuged tubes was dissolved in 10ml1.0 N NaOH solution. 0.1 ml of this solution of each powder was taken in three test tubes containing 4.0 ml. freshly prepared Lowry's 'C'. After adding 0.5 ml. Folin's – phenol reagent, the test tubes were incubated in dark at 37^0C for 30 minutes. The O. D. of blue colour developed was read at 530 nm. The blank was prepared in same way without dissolved protein precipitate. The protein content in different tissues was calculated referring to standard graph value and it was expressed in terms of mg protein/100 mg of dry tissue. The Bovine serum albumen was used as a standard.

Results and Discussion:-

Present investigation is concerned with changes in biochemical composition in different tissues of *Parreysia cylindrica* exposed to chronic dose of pesticide dicofol and its subsequent recovery after withdrawal of pesticide and its subsequent recovery by exogenous administration of L-ascorbic acid. In the present study obtained results demonstrated that, after chronic exposure to pesticides dicofol a marked depletion in the protein contents in the mantle, foot, gills, gonad, digestive glands and whole soft body tissues of the experimental freshwater bivalve *Parreysia cylindrica* was observed as compared to bivalves maintained as control.The percentage of decreased in protein content after chronic treatment of 7, 14 and 21 days with dicofol was 31.12, 41.72 and 48.65 in mantle, 24.65, 31.64 and 39.32 in foot, 44.92, 57.71 and 57.04 in gills, 49.01, 64.97 and 66.37 in digestive glands, 21.03, 32.46 and 47.66 in gonad and 29.06, 42.76 and 48.81 in whole soft body. The percentage of decreased in protein content after chronic treatment of 7, 14 and 21 days with dicofol was 31.12, 41.72 and 48.65 in mantle, 24.65, 31.64 and 39.32 in foot, 44.92, 57.71 and 57.04 in gills, 49.01, 64.97 and 66.37 in digestive glands, 21.03, 32.46 and 47.66 in gonad and 29.06, 42.76 and 48.81 in whole soft body.

Table -1- Impact of Dicofol On Total Protein Contain tissues of fresh water bivalve, *Parreysia cylindrica* after chronic exposure.

Sr. No.	Tissue	(A) Control			(B) Dicofol		
		7 day	14 day	21 day	7 day	14 day	21 day
1.	Mantle	41.91 ± 1.12	39.91 ± 1.16	38.47 ± 1.52	30.16* ± 1.56 (-31.12)	21.91* ± 3.04 (-41.72)	18.16** ± 2.17 (-48.65)
2.	Foot	63.48 ± 2.42	63.23 ± 1.26	62.91 ± 1.32	47.83** ± 2.80 (-24.65)	43.22** ± 2.71 (-31.64)	38.17** ± 2.50 (-39.32)
3.	Gills	54.16 ± 2.48	53.70 ± 1.65	53.20 ± 2.67	29.83** ± 2.06 (-44.92)	25.93** ± 3.86 (-51.71)	22.85*** ± 2.04 (-57.04)
4.	Digestive glands	50.74 ± 1.25	51.16 ± 2.68	50.86 ± 2.55	25.87* ± 3.01 (-49.01)	17.92** ± 2.98 (-64.97)	17.10*** ± 2.37 (-66.37)
5.	Gonad	48.58 ± 2.88	48.21 ± 1.62	47.12 ± 1.93	38.36* ± 2.14 (-21.03)	32.56** ± 1.31 (-32.46)	24.66** ± 1.20 (-47.66)
6.	Whole soft body	61.66 ± 3.04	61.12 ± 1.58	60.72 ± 1.90	43.74** ± 1.05 (-29.06)	34.98** ± 2.41 (-42.76)	31.08*** ± 2.62 (-48.81)

1.
Values expressed as mg/100mg dry wt. of tissue
2. (+) or (-) indicate percent variation over control
3. ± indicate S.D. of three observation
4. Values are significant at *P<0.001, **P<0.01, ***P<0.05
5. NS (Not significant).

The decrease in amount of protein content in different tissues after chronic exposure to pesticides indicate that, pesticides inhibits the synthesis of protein which ultimately results in increase in the free amino acid pool in the cell or due to enhancement of proteolysis to cope with the high energy demands under toxic stress (Vincent *et al*., 1995; Waykar and Lomte, 2001). A marked fall in the protein level in all the tissues indicates a rapid initiation of breakdown of protein. To meet energy demands during toxic stress mobilization of protein might have taken place. The depletion of protein tissue was due to diversification of energy, to meet the impending energy demand under toxic stress (Vincent *et al.*, 1995) and to prevent fatigue due to pesticide toxicity (Parate and Kulkarni, 2003). At high pollution stress however, protein synthesis can be suppressed indicating disturbance of normal metabolic processes (Pottinger *et al.*, 2002). The results of total protein contents in all tissues clearly indicate that digestive glands was the most affected organ followed by gill, whole body, mantle, gonads and foot. The higher depletion of protein in the digestive gland might be due to high metabolic potency and efficiency of the gland when compared to other tissues like mantle, foot, gills, gonads and whole soft body of the bivalve. The digestive gland is the site of action of pollutants in the body of bivalves or digestive gland seems to be the main site of degradation and detoxification of pesticides and hence has the largest demand of energy for the metabolic processes resulting into increasing utilization of protein in digestive gland provides better indication of the extent of toxicity. Mule and Lomte (1992, 1993, and 1995), Waykar and Lomte (2001) supported the most alteration of protein contents in digestive glands of freshwater bivalves. Patil (2011) observed maximum depletion of protein content in digestive glands than in mantle, gills, foot and whole body tissue. Depletion of protein content in animal tissue after exposure to various pollutants was reported by some workers. Ramana Rao and Ramamurthi (1978) observed alteration in protein content in tissue of *Pila globosa* after sumithion exposure. Lomte and Alam (1982) reported depletion of protein content in various body tissue of snails, after malation significant decline in protein content in fresh water mussel *Lamellidens marginalis* exposed to flodit and metacid. Similar observation were made by number of workers in molluse (Maneetal 1986), Muley and Mane 1989), Mule and Lomte 1993, 1995). Thus the result obtained in the present study indicate severe distrurbances in the protein metabolisms of the bivalve, *Parreysia cylindrica* exposed to dicofol.

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The Hierarchy and Distribution of Rural Service Centres In Jalgaon District (Ms)

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DOI- 10.5281/zenodo.7052710

Abstract :

A rural service centre is a nodal place or point which provides different amenities and services to its residents as well as surrounding population. The present paper tries to find the hierarchy and distribution of rural service centres in Jalgaon district. The data used for the present work is purely secondary in nature and obtained from the district census handbook of Jalgaon district. About 18 basic services are taken into consideration while identification of a rural service centre. The function centrality index (FCI) method is used for identification of service cetnre. The rank orders are decided using graphical method. It is found that the number of service centres increases with increase in ranks. The existing physical factors as well as socio-cultural and economic factors, the hierarchy and distribution of rural settlements have largely influenced the spatial distribution of rural service centres.

Key Words : rural service centre, hierarchy, Jalgaon district

Introduction :

A village is an important and basic unit of planning and development. More than 65 percent population of our country resides in rural area. A service centre is a central place which provides various important facilities to its hinterland or surrounding region. A study of service centres helps to better understand the region in sharing the functions of a rural setup. It takes into account the growth poles of the region and gives a glimpse of the possible bases for expansion in the future. Planners while considering the extension of services in rural areas, know only vaguely the distribution patterns of facilities, the extent of the area, and population which are covered and which needs to be served. (Jaymala, D 1978) Rural Service centres are the growth points or settlements with relatively high intensity of functional magnitude and distinctiveness. The fundamental trait of these centres is to serve their surrounding territory in terms of cultural, commercial, administrative and other requirements (Khan, 1995). In regional space, growth does not occur everywhere and all alone, it appears in points or development poles, with variable intensities. It spreads along diverse channels with varying terminal effects to the whole of economy (Perroux, 1955). A rural service centre plays a very important role in the life of the villagers because it provides various important facilities such as medical, educational, market centres, transportation, water supply, Post and Telegraph, banking and shopping facilities to its inhabitants. Perhaps a village may better serve as a market-centre or an important location for a dispensary, or perhaps have educational facility. Village is the basic unit of settlement development. (Jaymala, D 1978) Therefore, in present study emphasis is given to understand the network of service centres with their functional hierarchy, extent of zone of influence and functional gaps in rural context. Jalgaon district is selected for the present study because of its rural nature. The northern part of the district is occupied by the Satpura mountain ranges and is deprived of basic amenities. The study will investigate the imbalance of distribution of rural service centres in the district due to its varied geographical conditions. As the study is devoted to only rural service centres, urban area and towns are omitted from the study.

Objectives :

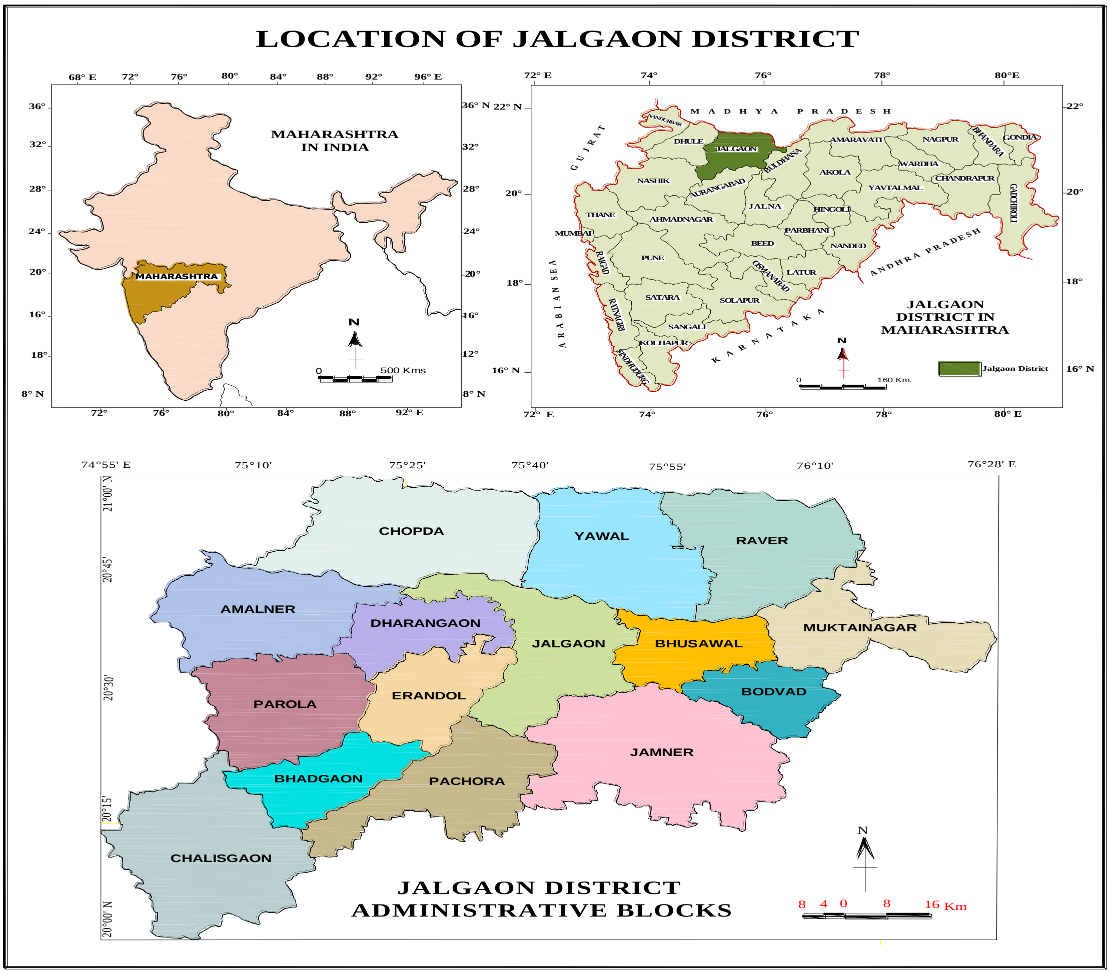
The presents study has framed the following objectives and an endeavor is made to attain the same.

1. To identify the rural service centres in Jalgaon district with the help of various facilities they provide.
2. To understand the distribution of rural service centres according to their hierarchical orders in Jalgaon district.

Methodology :

The Study Region :

The district under study is flanked by the Satpura ranges to the north and Ajanta hills to the south and the central part of the district is covered by well known Tapi river basin which flows towards the west. The region experiences slightly different climate than by rest of the state of Maharashtra, since it is located away from the coast but at much lower altitude that the rest of the plateau of Maharashtra. The location away from the coast has resulted in high range of mean daily temperature which is slightly than 15^0C. Low altitude has resulted in abnormally high maximum summer temperature which is normally above 40^0 C The district is bounded by the state of Madhya Pradesh to the north. The rivers Anner and Panjhara form a boundary in the west between the region and the Dhule district. In the east, the district under study is bordered by Buldhana district. To the south, Satmala, Ajantha and Chandor hills form a natural boundary between the study region and the districts of Nasik and Aurangabad. The Jalgaon district which is one of the 34 districts of Maharashtra lies between 20^0 N and 21^0 N latitudes and 74^0 55 E and 76^0 28' E longitudes. The total area of the district is 11765.0 sq. Km. According to 2011 Census, the total population of the region was 42, 29, 917.



Map No.1

Data : The present study is mainly based on secondary data which are obtained from the District Census Handbook of Jalgaon district for the year 2011. The services available at the villages in the districts are obtained from the Village Directory section the Census Report, 2011. SoI toposheets are used to show the location map and base map of the study region.

Identification of Rural Service Centres :

Centrality of a particular centre is measured in terms of its importance regarding functional capacity to serve the needs of the people in the surrounding area (Hangaragi, 2005). It may be expressed by both either qualitatively e.g. high and low centrality or quantitatively in terms of centrality scores obtained by converting the functional base of concerned centres. Many geographers attempted to establish a precise relationship between the size of settlement in terms of population and the range of functions which it offers (Jonson, 1967). Centrality, however, depends upon the intensity of the central functions. Bhatt (1976) had used a weighting technique to compute the centrality of service centres. Some scholars have measured the functional hierarchy of settlements on the basis of people's choice of centres to fulfil their needs (Sen *et al.*, 1971; Kayastha and Mishra, 1981; Mishra, 1985). Weighted indexing method (Sinha & Singh, 1995) was generally used to derive composite index value of a settlement based on its functional presence in context to the total functions found in the region. Since, all the functions cannot be treated equally, so weighting technique is used for computing the centrality under which functions are assigned numerical values on the basis of their relative regional importance. The weightage of functions in present study have been computed by adopting following formula (Bhat, 1976 and Mishra, 1985):

$$Wi = \frac{N}{Fi}$$

Where, Wi =Weightage of ith function
N =Total number of settlements
Fi =No. of settlements having that function

In present study, the hierarchy of service centres have been derived by using Functional Centrality Score based of Weightage method.

Functional Centrality Index value (FCI) of a particular centre has been computed by summing the weightage of all available functions of a centre and then it is divided by the total weightage of all selected centres. This may be expressed as:

$$FCI = \sum_{i}^{n} \frac{\text{Wij}}{\text{W}} \text{ x } 100$$

Where, CI = Functional centrality index

Wij =Weightage for jth centre

W=Total Weightage of all the centres.

The method of identification of rural service centres is performed on all the rural settlements of the district. The weightages method is used for this purpose. The process of identification of rural service centre is based on Median Population Threshold (MPT) calculated by Reed Muench Method (Haggett and Gunwardena, 1965). On the basis of Reed Muench method, MPT of 18 important facilities have been computed. The weightage value has been determined by first assigning an arbitrary value of 1 to the facility having lowest threshold, while the weightage value of other functions has been obtained by dividing its threshold population by the lowest threshold population in the distribution. The centrality score or functional potential of central places is the representation of total weightage value of facilities provided by the rural service centre. In Jalgaon district, there are 1487 inhabited rural settlements and all are not considered as the service centre or central place. Only the rural settlements having centrality score more than the regional average are considered as rural service centres for the present study. The following services or functions are taken into consideration for determining the centrality of a rural service centre.

Table 1: Threshold Population and Weighted Score for the Selected Functions in Jalgaon District (2011)

Sr. No.	Selected Services	Threshold Population	Weighted Scores
1	Public Bus Service	1322	1
2	Govt. Primary School	1595	1
3	Self - Help Group (SHG)	1619	1
4	Agricultural Credit Societies	1968	1
5	Govt. Middle School	2147	2
6	Sub Post Office	2242	2
7	Post Office	2408	2
8	Primary Health Sub Centre	2581	2
9	Govt. Secondary School	2816	2
10	Cooperative Bank	2980	2
11	Dispensary	3676	3
12	Commercial Bank	4136	3
13	Non Government Medical facilities Medical Practitioner	4642	4
14	Hospital Allopathic	4781	4
15	Primary Health Centre	4786	4
16	Govt. Senior Secondary School	4805	4
17	Internet Cafes / Common Service Centre (CSC)	6047	5
18	Govt. Arts and Science Degree College	10194	8

Source: Personal computation based on District Census Handbook of Jalgaon District, 2011

Results And Discussion :

Hierarchy of Rural Service Centres : The hierarchy of rural service centres refers to the arrangement of service centres according to their tier or order. Hierarchy of service centres depicts the stratification of centres into different tier or orders. The higher order centre provide the superior level of functions both in quantitative and qualitative way and have a vast hinterland or serving zone while lower orders provide low level of functions within a short distance. (Sarkar, 2018) A simple graphical method is used for identifying the hierarchy of rural service centres in Jalgaon district. The centrality scores of rural service centres are arranged is descending order and are plotted in a graph. The breaks in the continuity of graph are considered as breaks in the orders. The group between two breaks in considered one order of rural service centres. These are ordered from first to fifth order.

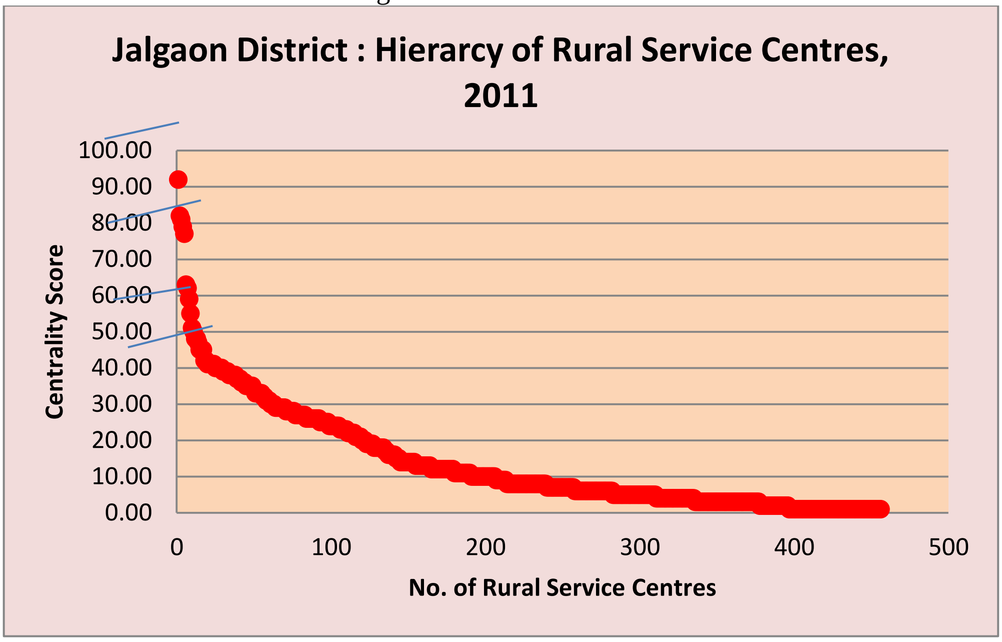


Fig. No. 02

(i) First order service centres : Under the category of first order, there is only one service centre namely Muktainagar with centrality score about 92. Though it does not enjoy the status of Tehsil headquarters, but it is only big town in Muktainagar tehsil. Due to administrative norms, Muktainagar is a Nagar Panchayat. It is well connect with the surrounding villages with road network.

(ii) Second order service centres : There were total four second order rural service centres in Jalgaon district in 2011. These were Nashirabad (Jalgaon), Bodvad (Bodvad), Kasoda (Erandol) and Shendurni (Jamner). All these second order service centres are large sized settlement and are as equal to small towns. The size of population of these villages is larger, and therefore, many services are made available for the residents as well as nearby small villages.

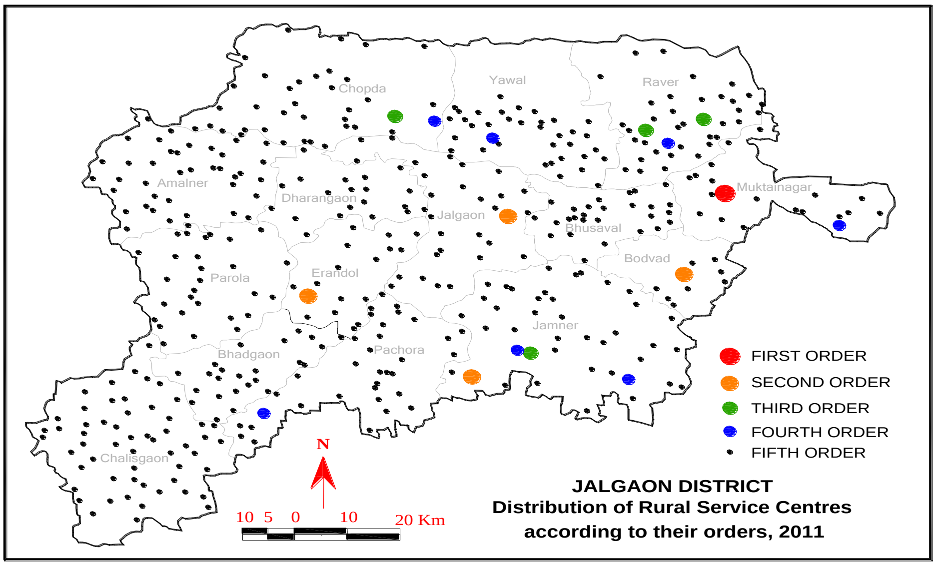
(iii) Third order service centres : There were four villages enjoying the status of third order rural service centres in Jalgaon district. These service centres were Adawad (Chopda), Raver rural (Raver), Chinaval (Raver) and Pahur (Jamner). These are also big rural settlements and well connected with road ways with the surrounding hinterland. Therefore, enjoy the status of a rural service centre.

Table No. 02 : Hierarchical distribution of rural service centres in Jalgaon district (2011)

Sr. No.	Tehsil	I	II	III	IV	V	Total
1	Chopda	0	0	1	1	34	**36**
2	Yawal	0	0	0	2	36	**38**
3	Raver	0	0	2	1	35	**38**
4	Muktainagar	1	0	0	1	18	**20**
5	Bodvad	0	1	0	0	8	**9**
6	Bhusawal	0	0	0	0	27	**27**
7	Jalgaon	0	1	0	0	28	**29**
8	Erandol	0	1	0	0	16	**17**
9	Dharangaon	0	0	0	0	20	**20**
10	Amalner	0	0	0	0	38	**38**

11	Parola	0	0	0	0	29	**29**
12	Bhadgaon	0	0	0	0	24	**24**
13	Chalisgaon	0	0	0	0	56	**56**
14	Pachora	0	0	0	1	33	**34**
15	Jamner	0	1	1	2	37	**41**
	Total	**1**	**4**	**4**	**8**	**439**	**456**

Source : District Census Handbook of Jalgaon district (2011)



(iv) Fourth order service centres : There were total eight fourth order service centres in Jalgaon district in 2011. These service centres were Dhanore (Chopda), Sakali (Yawal), Nhavi (Yawal), Nimbhore (Raver), Kurhe (Muktainagar), Nagardeola (Pachora), Pahur Kasba (Jamner) and Phattepur (Jamner). These are relatively larger sized villages having limited number of services which are provided to the inhabitants and surrounding population.

(v) Fifth order service centres : There were 439 villages identified as rural service centres at lower order i.e. fifth order. These service centres cater the need of local people with limited choices and relatively lower order of functions. Most of the service centres are equipped with basic level of services like primary school, fair price shop, post office, PCOs and family planning centres and sub-centres, primary cooperative societies, seed and fertilizer depot etc. Though these rural service centres are distributed throughout the district but the maximum concentration of these centres is found in the western and southwestern while the northern part is deprived of such centres due to physiographic inaccessibility.

Conclusion :

From the above results and discussion, it can be drawn that existing physical factors as well as socio-cultural and economic factors, the hierarchy and distribution of rural settlements have largely influenced the spatial distribution of rural service centres. The higher order of service centres constitute comparatively larger population base which induced better demands for functions and services. The villages having large population and better connectivity with the hinterland enjoyed the status of rural service centres in Jalgaon district. These are villages are nodal centres providing various amenities and services to the residents and surrounding population. The lower order service centres at fifth ranks are large in number due to availability of few services. But these villages are also depend on nearby bigger service centres for many services and amenities.

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Analysis of Opinions on Issues Affecting Sex Ratio: A Case Study of Jalgaon District

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Abstract :
The present paper tries to analyze the opinions on issue affecting sex ratio in Jalgaon district of Maharashtra. The survey method is used for the study. About 900 respondents are interviewed from 30 villages from the district. Systematic random sampling method is used while selecting the respondents. It is found that a sizeable proportion of men are agree that household work should be shared by men. It is also interesting that many respondent still are unaware about biological fact that by birth girls are stronger that boys. When the mindset is such that women have to be subordinated, it will be a difficult task, if not impossible to confront it, to bring about any change. Though there are certain good changes happened in the society regarding empowerment of women and girl child but during the field visit, male respondents were vacillating regarding acceptance.
Keywords : opinion, sex ratio, Jalgaon district

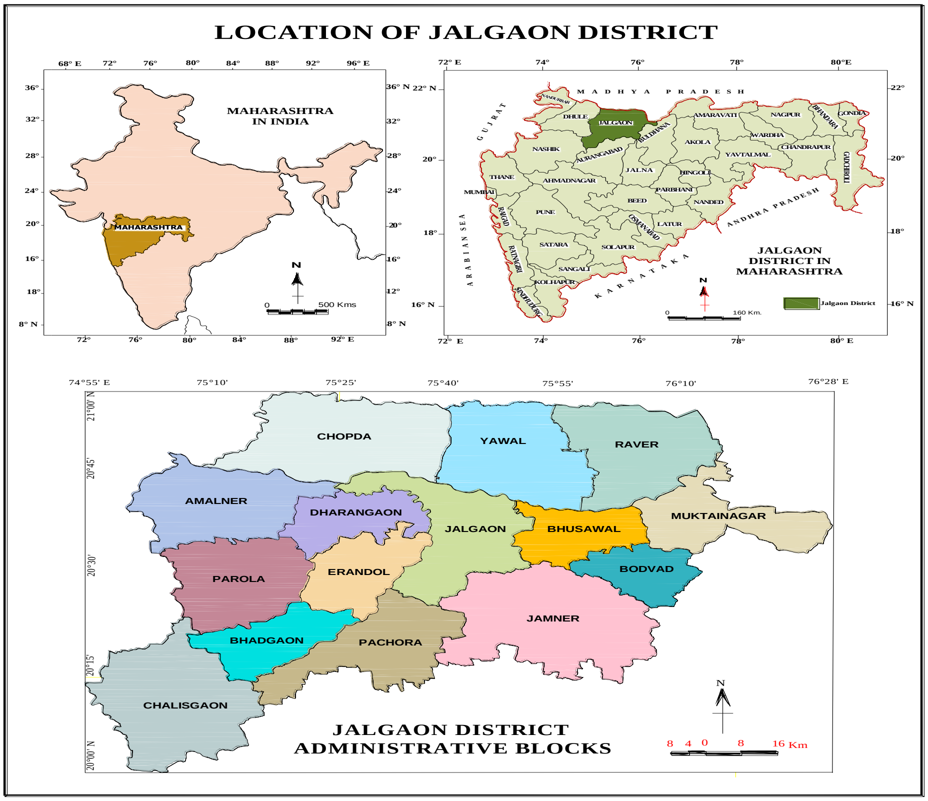
Introduction:
Sex ratio is one of the important components of population composition of any region. The sex ratio is defined as the ratio of the number of males to number of females in a population set. It is internationally expressed per 100 females but in India, it is expressed as per 1000 males. In Maharashtra, the child sex ratio in the year 1991 was 946 girls for every 1000 boys and in 2001, it declined up to 913 girls per 1000 boys. But in 2011 Census, this decline is very sharp and it has become the matter of greater concerned because now this ratio is as low as 894 girls per thousand boys. In Jalgaon district, the sex ratio was only 822 females per thousand males. This is the matter of serious concerned. Biologically, there should not be difference in numbers of male and females. But this difference exists due to various socio-economic factors as well as customs, beliefs, taboos etc. prevailing in the society. It is important to understand why and how the child sex ratio has declined. Other things being equal, the child sex ratio, like the sex ratio at birth, does not undergo drastic changes over short periods of time. Women have experienced in the past, and continue to experience, higher mortality than men from late infancy to almost the end of their reproductive period. The various customs, beliefs, taboos prevailing in the society allow to discriminate between male and females. In many families females under-privileged due to these factors. Though, these customs are followed by the most of the people, but there exists difference of opinion among men, females and mother-in-laws. This paper tries to analyse the responses of people about the issue affecting sex ratio in Jalgaon district.

Objective:
The objective of the present research paper is to analyse the opinion on issue affecting sex ratio in Jalgaon district of Maharashtra.

Research Methodology:
The researcher undertook a study to ascertain the awareness about the existence of dowry system and dowry harassment in the study region. The field work was conducted throughout the district. The primary data for the study was collected through multi-stage stratified random sampling method. Two villages from each tehsils (15 x 2 = 30 villages) were selected by considering various geographical factors such as physiography, rainfall, net sown area, density of population and sex ratio. Urban respondent were considered from Amalner town. The perceptions of different stakeholders – women (15-45 years), men and mothers-in-law/elderly women, were ascertained. 10 women (15-45 years), 10 men and 10 mothers-in-law were communicated from each village. Therefore, from 30 villages 30 respondents were communicated which arrived at total 900 respondents. The data was substantiated with an analysis of policy instruments, programmes, legal provisions, enforcement machinery, media inputs, etc. on the issue, using secondary source data. Care was taken to maintain confidentiality at all costs.

The Study Region:
The district under study is flanked by the Satpura ranges to the north and Ajanta hills to the south and the central part of the district is covered by well-known Tapi river basin which flows towards the west. The region experiences slightly different climate than by rest of the state of Maharashtra, since it is located away from the coast but at much

lower altitude that the rest of the plateau of Maharashtra. The location away from the coast has resulted in high range of mean daily temperature which is slightly than 15^0C. Low altitude has resulted in abnormally high maximum summer temperature which is normally above 40^0 C.



Map No.1

The district is bounded by the state of Madhya Pradesh to the north. The rivers Anner and Panjhara form a boundary in the west between the region and the Dhule district. In the east, the district under study is bordered by Buldhana district. To the south, Satmala, Ajantha and Chandor hills form a natural boundary between the study region and the districts of Nasik and Aurangabad. The Jalgaon district which is one of the 34 districts of Maharashtra lies between 20^0 N and 21^0 N latitudes and 74^0 55 E and 76^0 28' E longitudes. The total area of the district is 11765.0 sq. Km. According to 2011 Census, the total population of the region was 42, 29, 917.

Results and Discussion:

The table shows the opinions of respondents on various issues regarding social taboos related to girl and boy. The issues which are commonly follow by the people in the society of the study region are given in the table. The responses regarding these assumptions are taken as 'agree' or 'disagree'. Those who are not confirmed about their opinion come under 'partially agree'. The analysis of opinions on various issues is as follows.

(i) By birth girls are stronger : A majority of the respondents have reported opinion as disagree. About 40 percent respondents are disagree. Among them, proportion of men is more, i.e. 49 percent. But about 37 percent mother-in-law are agreed on this issue. The women are also inclined towards the opinion that by birth girls are not stronger.

(ii) Is it all right if girls do not go to school? : This is very good indication that from the opinions all the respondents that almost all agree that the girls should go to school. Very few respondents have opinion that it is all right if girls do not go to school, and majority them are mother-in-laws. The respondents have opinion that education is must for girls too.

(iii) Boys need more food than girls : On this issue also a majority of the respondents are disagree that boys need more food. Here quality of food was also included. More than 90 percent respondents disagreed on this issue.

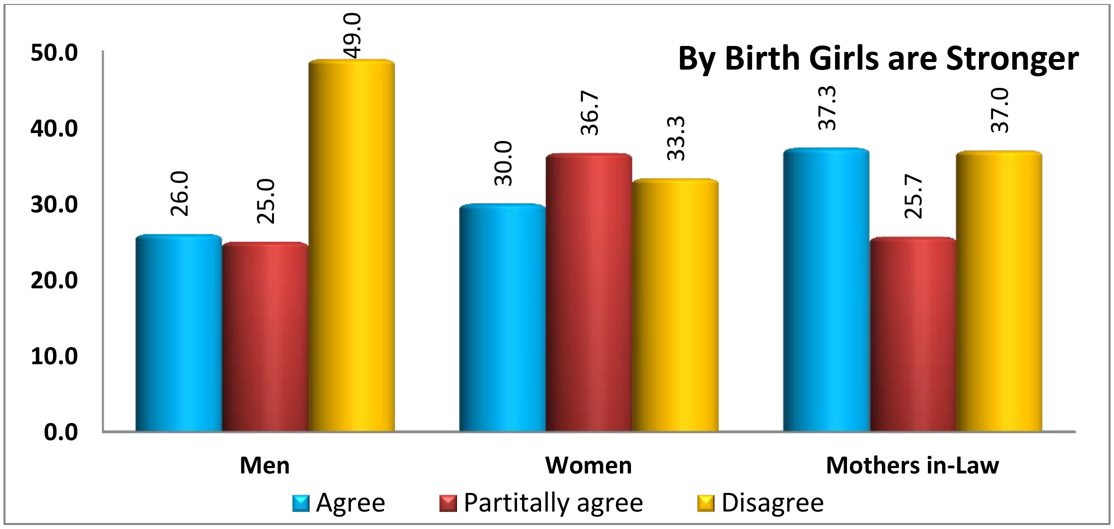
(iv) Girls should not be allowed to play outside as it is not safe : This issue is related to safety and security of girls. But more than 75 percent respondent were disagree on this issue, and therefore, they were of the opinion that girls should allowed to play outside and it is safe. However, more than 15 percent respondents were agreed on this issue and reported as it is not safe to allow girls to play outside.

(v) Older girls should remain indoors : This is also an issue related to the safety and security of older girls. Therefore, there were mixed opinions of the respondents on this issue. About 44 percent respondents were agree that older girls should remain indoor for the purpose of safety and security. But it is also interesting that about 50 percent respondents have opinion that girls and boys are equal and therefore, older girls should not remain indoor.

Table No. 01 : Opinions of Respondents on Various Issues

Awareness about Various Issues	**Respondents**			**Total** n=900 No. (%)
	Men n=300 No. (%)	**Women** n=300 No. (%)	**Mothers in-Law** n=300 No. (%)	
By birth girls are stronger				
Agree	78 (26.0)	90 (30.0)	112 (37.3)	280 (31.1)
Partially agree	75 (25.0)	110 (36.7)	77 (25.7)	262 (29.1)
Disagree	147 (49.0)	100 (33.3)	111 (37.0)	358 (39.8)
It is all right if girls do not go to school				
Agree	07 (2.3)	17 (5.7)	25 (8.3)	49 (5.4)
Partially agree	02 (0.7)	01 (0.3)	01 (0.3)	04 (04)
Disagree	291(97.0)	282 (94.0)	274 (91.4)	847 (94.2)
Boys need more food than girls				
Agree	05 (1.7)	03 (1.0)	04 (1.3)	12 (1.3)
Partially agree	41 (13.7)	18 (6.0)	13 (4.3)	72 (8.0)
Disagree	254 (84.6)	279 (93.0)	283 (94.4)	816 (90.7)
Girls should not be allowed to play outside as it is not safe				
Agree	25 (8.3)	51 (17.0)	62 (20.7)	138 (15.3)
Partially agree	35 (11.7)	24 (8.0)	21 (7.0)	80 (8.9)
Disagree	240 (80.0)	225 (75.0)	217 (72.3)	682 (75.8)
Older girls should remain indoors				
Agree	105 (35.0)	134 (44.7)	156 (52.0)	395 (43.9)
Partially agree	16 (5.3)	25 (8.3)	19 (6.3)	60 (6.7)
Disagree	179 (59.7)	141 (47.0)	125 (41.7)	445 (49.4)
Boys are more intelligent than girls				
Agree	07 (2.3)	11 (3.7)	12 (4.0)	30 (3.3)
Partially agree	17 (5.7)	15 (5.0)	08 (2.7)	40 (4.4)
Disagree	276 (92.0)	274 (91.3)	280 (93.3)	830 (92.2)
It is acceptable if a man beats his wife				
Agree	10 (3.3)	05 (1.7)	09 (3.0)	24 (2.7)
Partially agree	12 (4.0)	10 (3.3)	12 (4.0)	34 (3.8)
Disagree	278 (92.7)	285 (95.0)	279 (93.0)	842 (93.6)
Males and females should get equal pay for equal work				
Agree	288 (96.0)	290 (96.6)	278 (92.6)	856 (95.1)
Partially agree	05 (1.7)	05 (1.7)	02 (0.7)	12 (1.3)
Disagree	07 (2.3)	05 (1.7)	20 (6.7)	32 (3.6)
Household work should also be done by males				
Agree	218 (72.7)	222 (74.0)	208 (69.3)	648 (72.0)
Partially agree	57 (19.0)	65 (21.7)	66 (22.0)	188 (20.9)
Disagree	25 (8.3)	13 (4.3)	26 (8.7)	64 (7.1)

Source : *Data collected during field work.*



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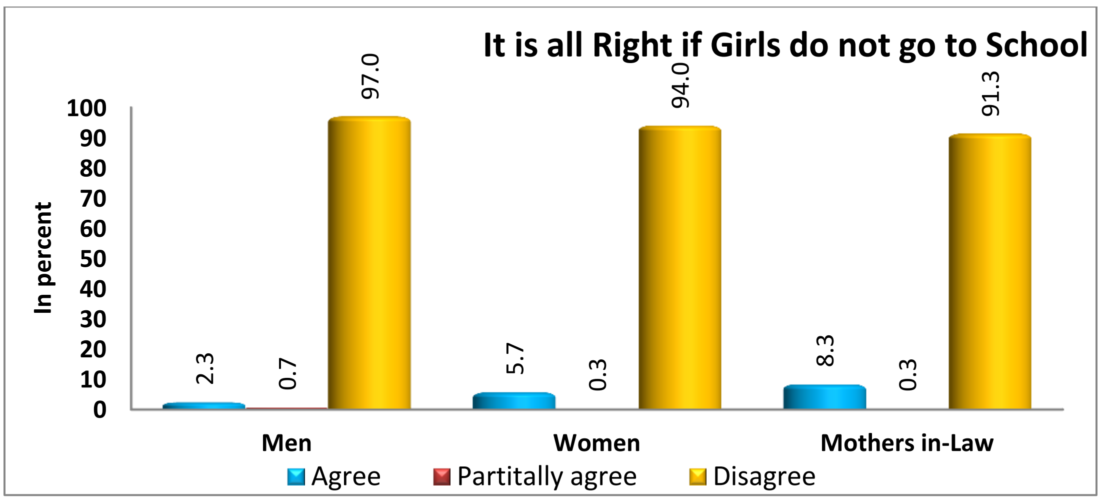

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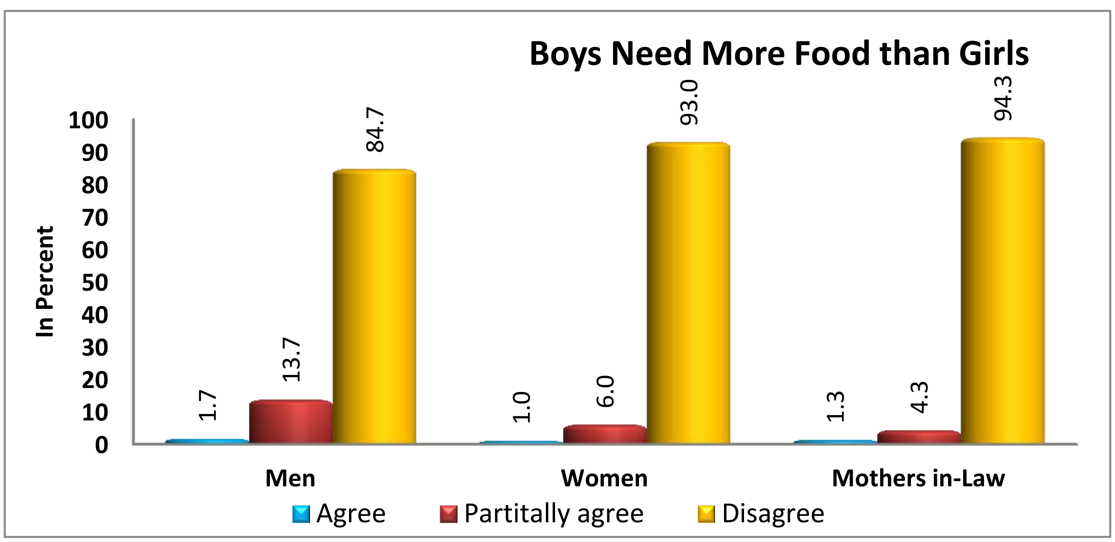


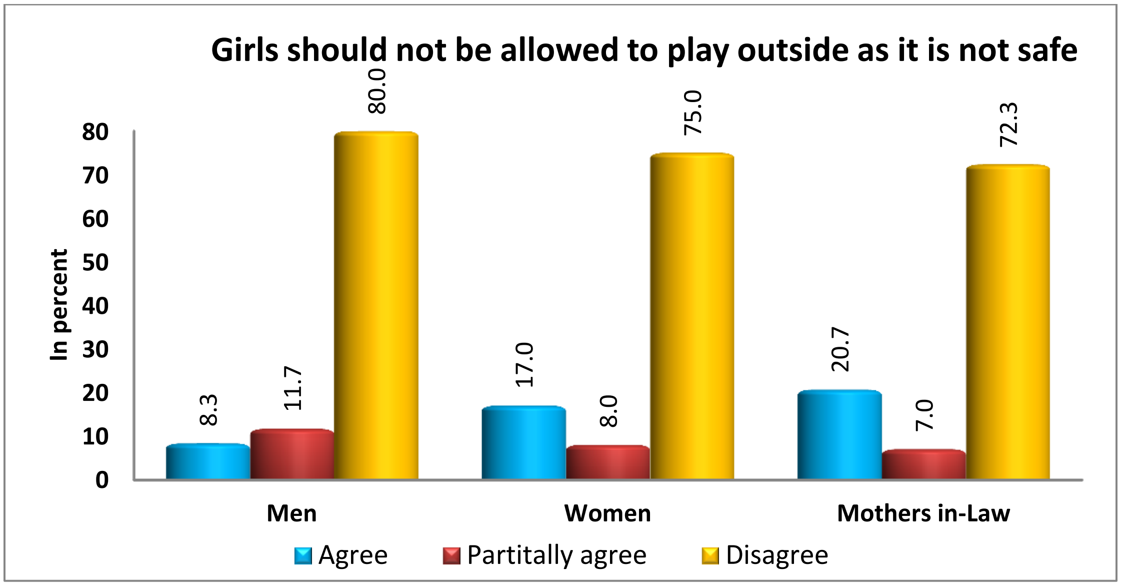
Fig. No. 04

(vi) Boys are more intelligent than girls : This issue seems to be illogical but included to know the opinions of the respondents. As expected, more than 92 percent respondents were disagree that boys are more intelligent than girls. They are of the opinion that if equal opportunity is provided to boys and girls, girls will prove their intelligence.

(vii) It is acceptable if a man beats his wife : The opinions of the respondents on this issue were in favour of women. More than 93 percent respondents not accepted that a man should beat his wife. But it is also interesting that more than 3 percent still accept that a man should beat his wife and it is acceptable.

(viii) Males and females should get equal pay for equal work : More than 95 percent respondents agreed on the issue that males and females should get equal pay for equal work. But still there were about 3.6 percent respondents who responded that males should get more pay for equal work.

(ix) Household work should also be done by males : It is interesting to know that more than 72 males agreed with the issue that household work should also be done by males. They are helping or ready to help to female house member in household work. But less than 70 percent mother-in-laws are agreed with this opinion.



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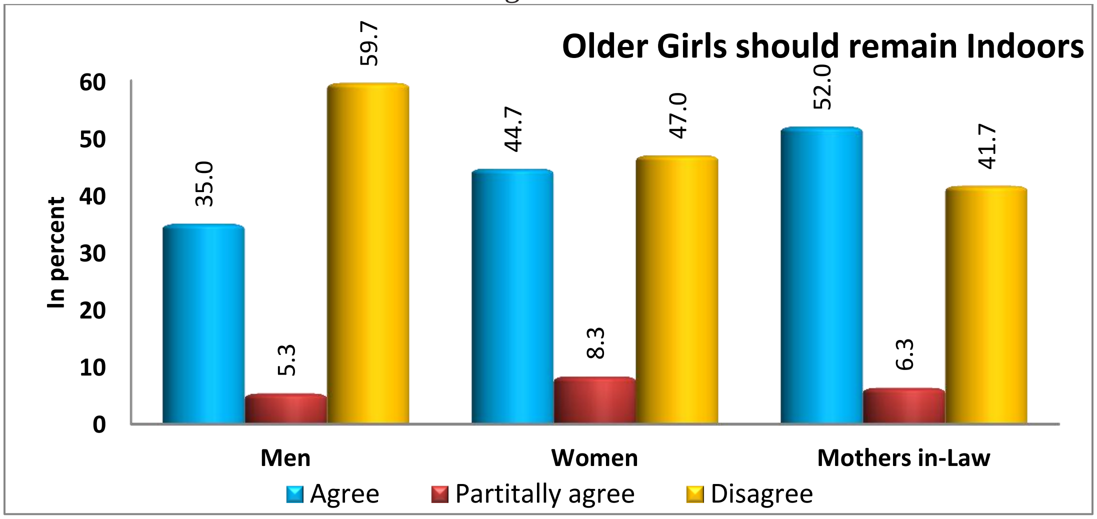

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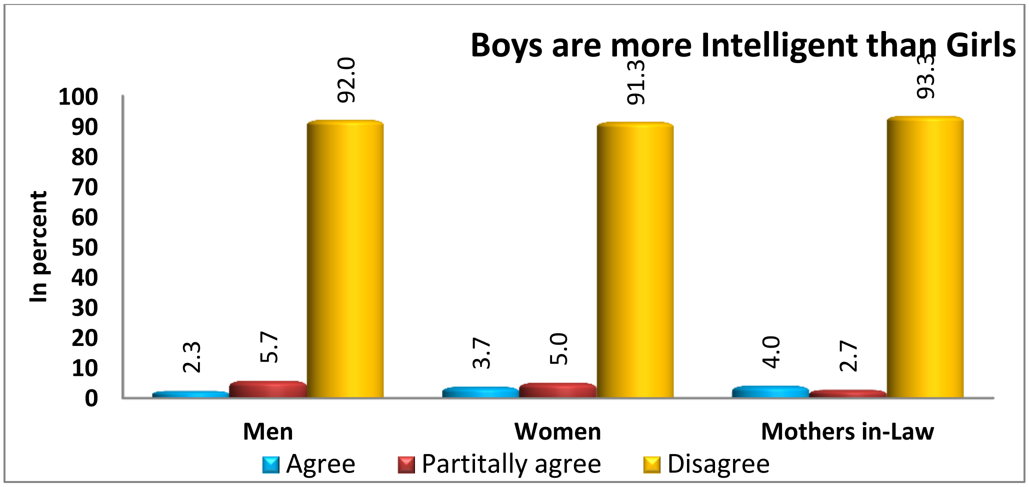

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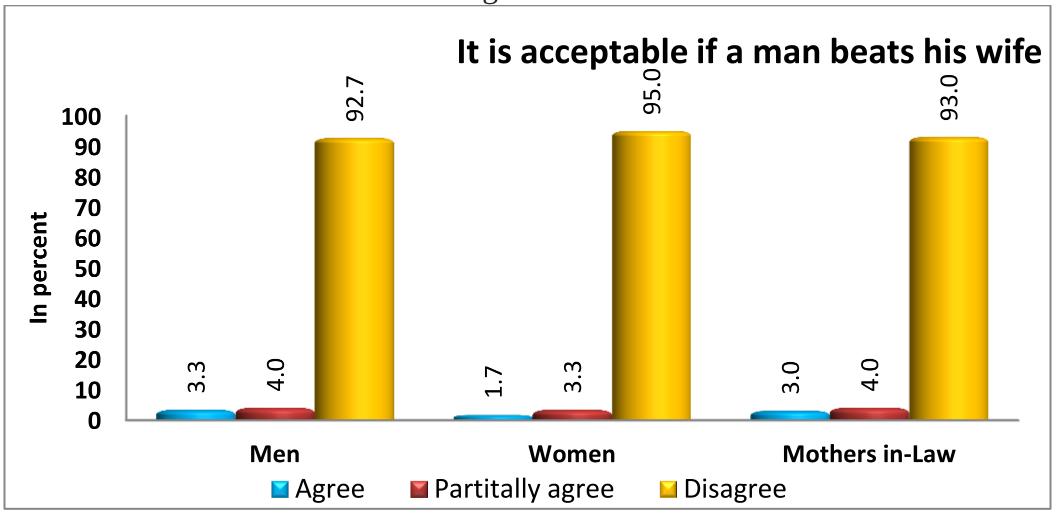

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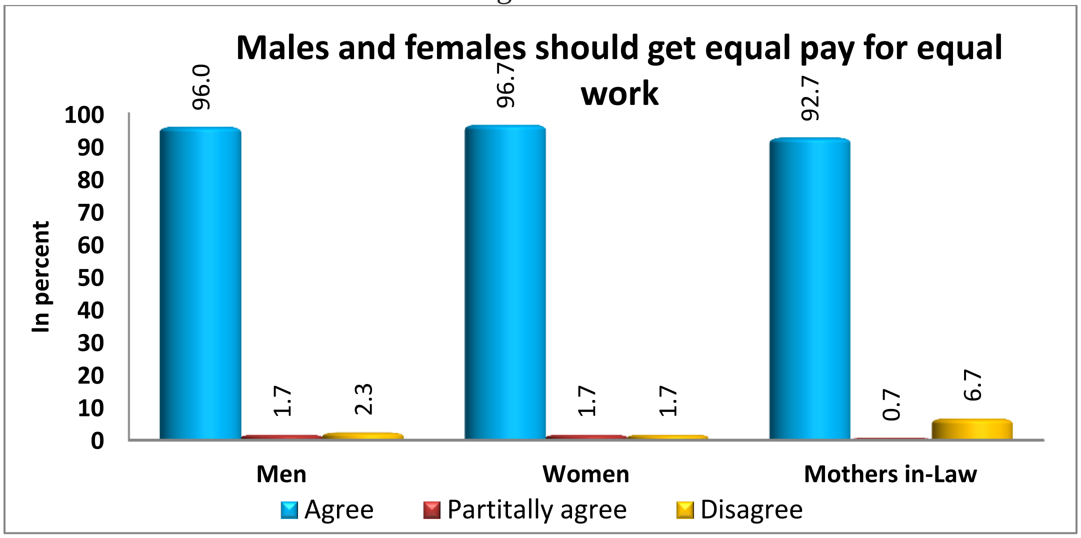

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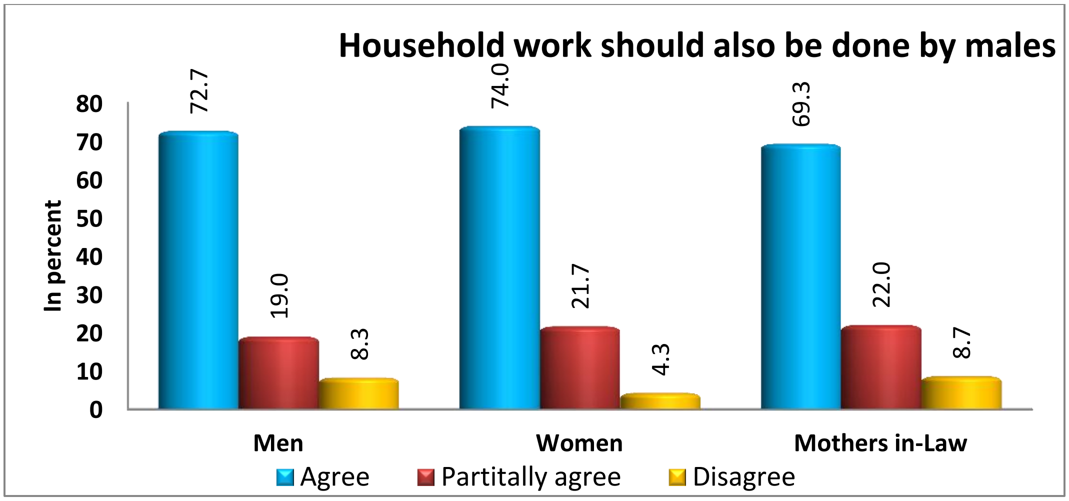

Fig. No. 10

Conclusion :

The salient finding of the study regarding this issue is that the responses were those that were socially acceptable. But on two issues, namely 'girls should not be allowed to play outside as it is not safe' and 'older girls should remain indoors' the older and more empowered women and the mothers-in-law agreed more vehemently than the men. In fact, mothers-in-law were of the very firm opinion that 'girls should remain indoors' which is not shared so much by the women respondents. Another opinion that goes in favour of women is that a large proportion of respondents 'disagree' with a man beating his wife.

Another pointer is that a sizeable proportion of men are agree which is also a pleasing fact. But still there are some respondents who either 'disagree' or 'partially agree' that household work should be shared by men. It is also interesting that many respondent still are unaware about biological fact that by birth girls are stronger that boys. About 40.0 percent respondents are disagree on the fact that by birth girls are stronger than boys. When the mindset is such that women have to be subordinated, it will be a difficult task, if not impossible to confront it, to bring about any change. Though there are certain good changes happened in the society regarding empowerment of women and girl child but during the field visit, male respondents were vacillating regarding acceptance.

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Crime against Senior Citizens and Legal Protection in India

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DOI- 10.5281/zenodo.7052759

Abstract

In India, crimes against the senior citizen have been increasing rapidly. Today, they are mostly the victims of various crimes like murder, serious injuries, cheating and brutality and they are unattainable to other family members and neighbours due to lack of neighbourhood involvement, dependence on others, family violence, vulnerability, defensibility etc. These incidents attract the academicians as well as the policy makers to pay notice to the various dimensions of these crimes. There is a higher danger to the life of the senior citizens in our nation. The senior citizens have not been tossed out of the standard as far as possible however they are left without any assets and are seen powerless in their homes. Movement, urbanization, industrialization and globalization has obsessed scrambling of space in the urban communities, in this manner the senior citizen are abandoned by their little youngsters so they can keep up their ideal ways of life. Crime against the senior citizen such as murder, financial crimes, fraud, and burglary are the most common. Criminals consider the elderly people as easy targets because they are physically fragile and they are less able to shield or care for themselves. The senior citizens are considered as the bastions of our nation. They most likely won't be a lot of dynamic like they were in their young age, however their experience of life is momentous of the current ages on the grounds that our seniors have seen the best and the most noticeably unpleasant of both conformist and present day world.

***Key words**: legal, senior, crime, citizens and protection.*

Introduction

Ageing is an inevitable process that attracts different types of disabilities and dependencies that necessitate the requirement of enacting specific categories of laws, rules and regulations to protect the rights of elderly persons. Laws primarily tend to protect the elderly persons from several types of 'elderly abuse' which are manifest in our society in several forms such as-neglect or permanent abandonment, physically abusing the elderly as they are easy to target psychological abuse as they desire more care and attention, verbal abuse, financial abuse, healthcare abuse etc. The definition of elderly persons primarily comprises those persons whose age almost surpasses the average life span of human beings. But it's difficult to define its boundary exactly as every society has its meaning. According to the 'National Policy on the elderly person, 1999" elderly person means a person who has attained the age of sixty years or above. In earlier times, the elderly enjoyed a significant position in the family. The elder member of the family was considered the head of the family, and all the other members followed the decisions and orders taken by the head. The present research work primarily focuses on the causes and impact of various abuses against the elderly persons, existing legislative framework and the response of judiciary. This paper refers the doctrinal study with constitutional provision, statutory enactments and judicial decisions regarding the care and protection of senior citizens in India.

Causes of crimes against the Senior Citizen

Growing old is natural, and changes occur in a person's physical and mental well- being. This gives prominence to the loss of earning opportunities and capacities, eventually resulting in dependence on the family members for survival and basic needs. The family starts treating the older persons as a burden and considers them not in a position to contribute in any aspect. Ageing and its related problems are diverse and need a more comprehensive approach. Elderly persons are considered a vulnerable section of society as they are easy targets. The number of elderly abuse reported by the National Crime Records Bureau since 2014 is debilitating. As per the NCRB 2020, Delhi had the highest number of crimes committed against senior citizens, and it reported about 906 crimes committed against them in 2020. The crime against elderly persons is one of such grey areas which, despite several enactments and legal provisions of far-reaching significance, did not receive the deserved attention or required response. The most important cause of the crimes committed against the senior citizens is the transition of nuclear family from the earlier prevailing joint family structure as with this the elderly people are staying alone for most of the time and with this multiple opportunity is created for committing crimes against the elderly persons. Apart from this there could be several other factors responsible such as urbanisation, industrialization and globalization due to which we often see how the elderly persons are left alone. The prominent reason why the elderly population are often targeted is that due to deteriorating health conditions and there dependencies which creates a need for them to depend on other persons evenfor carrying out the minor day to day activities. And when we are dependent on someone it is obvious that the other person is in a convenient position to exercise undue influence. The elderly persons are in a need of constant care, attention and affection and what they get is abandonment, neglect and several other forms of abuse. People often misbehave with the elderly persons as they consider them to be a responsibility and those persons who are not in a position to contribute them. Industrialisation and Urbanization has also contributed to the rise in the number of offences against the senior citizens. Due to this the younger generation is found migrating to the metropolitan cities for pursuing their education or pursuing their carrier and being established in their professional carrier and in this process we often find the parents i.e. the elderly population left behind alone and lonely which makes their status more vulnerable. The sudden shift to modern society and shift to the world of digitalisation and virtual space the elderly population has generally been considered not to be the suitable part as they would not be in a position to contribute or be a part of the developing system.

The status of an elderly person basically depends on the way how the society and most importantly their family treat them. If their family considers them to be an integral part and gives them all the required attention, care and love then the society will also have a respectful attitude towards those elderly persons. The elderly has witnessed such a significant position in the family in the ancient history but with modernisation and influence of various factors changes the approaches towards the elderly.

Legislative framework towards senior citizen

The constitution of India

Constitution of India strives to create a free society, through justice in all sphere of life, irrespective of the caste, sex, race, religion, creed or age. The Preamble of the Constitution secures to all its citizens, certain rights and standards. Social justice is possible only when there survive a society for all ages. Economic justice mandates the prospect to the older persons to secure an adequate means of livelihood or financial independence. Liberty is associated to the dignity and independence of the older persons. The expression of senior citizen should not to be sabotaged by the younger generation, and the faith and worship be held by the elderly are to be respected and allowed. Equally status and opportunity is very important for the older persons. The Preamble of the constitution along with Article 51 (c) which mandates the State to make an effort to promote respect for international law and treaty obligations. The International Plan of Action on Ageing, 2002 “to make certain that senior citizen are able to age with security and dignity and to continue to participate in their societies with full rights” and thereby create “a society for all ages”.

Personal laws:

Hindu law

The Hindu Adoption and Maintenance Act, 1956 authorises a person to look after the needs of his parents who are not in a position to carry out their expenses under sec. 20. The elderly persons should not be left in a state of isolation in the streets or asking for help here and there. Initially it was the duty of the son to maintain his aged parents but now, it is also the duty of the daughter to maintain her elderly parents who are not in a position to maintain them. In the case of *K.M. Adam Vs. Gopalkrishnan*, 1974, the Supreme Court declared that if the child is a Hindu, it is obligatory for him to maintain his parents irrespective of the fact whether the father or mother is Hindu or not.

Muslim law

Under Islam it is significant for every person to carry out the expenses of his father and mother, who are not in a position to carry out their own expenses as per Mulla. Under the Hanafi Law, there is a duty cast upon the children to look after the needs of their parents and even the grandparents as per Tyabji. In Islam there is no law regulating the conduct of the children to maintain their parents but those practice Islam it automatically applies upon them.

The Code of Criminal Procedure, 1973

The Code of Criminal Procedure, 1973 under Section 125 authorities that as and when the matter arises the Magistrate may pass an order directing the children including the married daughters to carry out the expenses of their old parents.

Maintenance and welfare of parents and seniorcitizens act 2007

Giving accent for the need of a central legislation on the point of maintenance of the Senior citizens the Parliament of India enacted the 'Maintenance and Welfare of Parents and Senior Citizens Act, 2007 in the year 2007. The Act casts a duty upon the children to look after the necessities of their parents. As per the Act it is necessary that the State Governments establishes one or more tribunals for looking into the matters relatedto the maintenance of the elderly persons. The maximum amount which could be awarded by the tribunal is 10,000 and the maximum imprisonment is for a period of three months. The Tribunal is also competent to award a fine of 5000 instead of imprisonment or it may award both. Under Section 5 of the said Act, a senior citizen who is unable to maintain him or herself can make an application against their children to carry out their expenses. Any senior citizen not having children of their own can make an application against those relatives mentioned in the Act. The Act requires the State Governments to establish and keep up a suitable number of old age home with all the required facilities. The State Governments should begin with having at least one old age home in every district for the initial period and the number may increase as and when the necessity arises.

The Maintenance and Welfare of Parents and Senior Citizens (Amendments) Bill 2019

The Central government proposed a draft bill in 2019 to amend the provisions of the act with the objective of ensuring need based maintenance based and senior citizens and their welfare. In 2019 the Maintenance and Welfare of Parents and Senior Citizens (Amendment) Bill, 2019 was introduced by the centre in the Lok Sabha. The basic objective of the bill was to increase the scope of the definition of children and include even the adopted sons and daughters, step children, son in law and daughter in law, grandson and granddaughter. The parents would also cover on both biological and adoptive parents and most vitally as father-in -law and mother-in-law. The maintenance has extended and suggests to be providing in such a manner, that they can lead a life of respect and dignity. The Bill recommends that the children should pay the amount within 15 days of passing of the order and not within 30 days as per the 2007 Act. The Bills recommends of increasing the imprisonment to six months and even increase the fine to 10,000.

Judicial pronouncements towards elderly persons

Justice is the balancing of interest between two aggrieved parties. The Justice system prevailing in the country always proves to be the most efficient in rendering speedy and effective justice to the people of India especially for the elderly persons who forms the significant part of the nation. The evident portion is that the apex court is always aware of the fact that elderly persons need a special care and attention so that they could live a life of dignity and respect and be able to enjoy all the rights and liberties meted out to them. The Supreme Court and the various High Courts are already aware of the increase in the number of elder abuses in the country.

According to the World Health Organization, in spite of the rise in the number of cases relating to elderly abuse in India we find very few case law on the issue of elderly abuse as often we see that the decisions passed by the Courts in this aspect are not published under the category of elderly abuse. A prominent reason why we don't have sufficient number of case laws is that most incidents are never placed in the Judicial System in the first instance.

The atrocities meted out to the elderly persons may be difficult to prove. The availability of the physical evidence may be next to impossible because of the delay in reporting of the cases or because of the failure to identify that atrocity has been committed. Witnesses may not be ready and willing to come to the court and give their statement. Moreover in many cases we have seen that the victim is unable to testify either because of the delay in the matter reaching the stage of decision or his condition at the time of the abuse was such that he was not in a position to identify the victim. In the matters related to the elderly abuse, the courts can play an important role in providing the elderly persons from the different forms of abuse, compensating them for damages, enabling them to cope up with the financial losses they have incurred and prosecuting the aggressors. The elderly persons we often see are not in favour of bringing criminal actions against their own family members, care givers, dependents, neighbours or any person in a fiduciary capacity. Reasons could be multiple like fear of more abuse, no intention of putting the abuser in more trouble, dependency on the abuser and anticipation of being shifted to a nursing home. Moreover many a times the victim is not aware that he or she is experiencing any form of elderly abuse and that there could be a remedy to get relief. Despite of the difficulties cited above it is seen that many cases related to elderly abuse are not only reported but the Supreme Court has also granted justice to suchvictims. The Hon'ble Chief Justice of India has advised Chief Justices of all the High Courts in India to pay special attention to the cases concerning the Elderly persons and try to resolve the matters in an expidious manner in the Year 1999 itself in accordance with the Ministry of Social Justice and Empowerment New Delhi.

Case laws

Certain leading case laws have been discussed on issues of care and maintenance of senior citizen in our country. In case of Bhagwan Dutt Vs. Kamla Devi, the court had discussed the object of Section 125 Cr.P.C. which is to protect the dependents from vagrancy and need. It is the moral duty of every son or daughter to maintain, support or take care of their parents. When the son or daughter is capable of providing maintenance it would be unjust that the parents are left alone on the streets. In case Santosh Surendra Patil Vs. Surendra Narasgopnda Patil, 2017 the Court has advised and recommended the State Governments to act as guardians of senior citizens and old infirmed parents who are left alone in the streets with no one to look after being subjected to the various forms of elderly abuse. In case of Kirtikant D. Vadodaria Vs. State of Gujarat, 1996 SC held that the elderly parents are entitled to get maintenance from their daughter just as they are entitled to receive from their son under the Hindu Adoption and Maintenance Act, 1956.

In the case of Jharkhand Senior Citizens Advocates service Sansthan and Another Vs. State of Jharkhand , 2016 the High Court of Jharkhand held that the State Government should as soon as possible setup Old Age Homes in each district for the victims of elderly abuse and the helpless and homeless elderly persons. The State should also make necessary arrangements in the hospitals for the treatment of the elderly persons so that they should be treated as soon as possible.

Conclusion

Old age is not a “disaster” that affects only people on the other side of the globe. It is an unavoidable side of everyone’s life. As a person advances in age, due to physiological and psychological incapacities that may develop with old age, he/she may need support from family and community for dignified nourishment. Deteriorate of the traditional family support systems has destroyed and older persons being left alone to sustain for them. This results in violation of the priceless human rights, of the older persons including rights to security, participation, health care, adequate standard of living, freedom from torture or cruel, inhuman or degrading treatment and dignity. The central government have enacted certain laws and policies to protect the senior citizens from certain kinds of cruelty and abuse. The judiciary also stands on care and protection of senior citizens in India.

Suggestion

The problem of the senior citizens should be addressed to urgently and with maximum care. There is urgent need to amend the Constitution for the special provision to protection of the senior citizen and bring it in the margin of fundamental right. The degeneration of joint family system, disruption of familiar bonds and loss of respect for the aged person, the family in modern times should not be thought to be a secure place for them. Thus, it should be the Constitutional duty of the State to make an Act for the welfare and extra protection of the senior citizen including sedative care.

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Special Health Smart Cards Scheme Government Benefit to Korga's Primitive Tribal Group Mangalore District in Karnataka

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DOI-10.5281/zenodo.7052803

Abstract-
Health is one of the fundamental basic needs of all human beings. It is a positive state of wellbeing rather than a negative state of mere absence of disease. The concern for better health care is universal. Health is primary requisite of a person. Health is a function of not only medical care, but also of a person, overall integrated development of society. Health is another important ingredient of human development. It determines both the longevity and the quality of life. Health also impacts learning outcomes, functioning capability and earning capacity of the people. Ill-health can lead to deprivation in capability which results in low work efficiency and hence poverty. Poverty, caused by poor health, can further adds fuel to ill health through low food intake, nutritional deficiency, deprivation of basic amenities (safe drinking water, sanitation, drainage, etc.,) causing a colossal loss of financial as well as human resources (GoI, 2011). The United Nations, people oriented 'Millennium Development Goals' concluded in the year 2015, which triggered new initiatives in the form of 'Sustainable Development Goals (SDG)' with a continuing mandate to "Ensure healthy lives and promoting well-being for all, at all ages". The focus towards achieving Universal Health Coverage for ensuring the wellbeing of all was expressly underpinned in this goal

Introduction

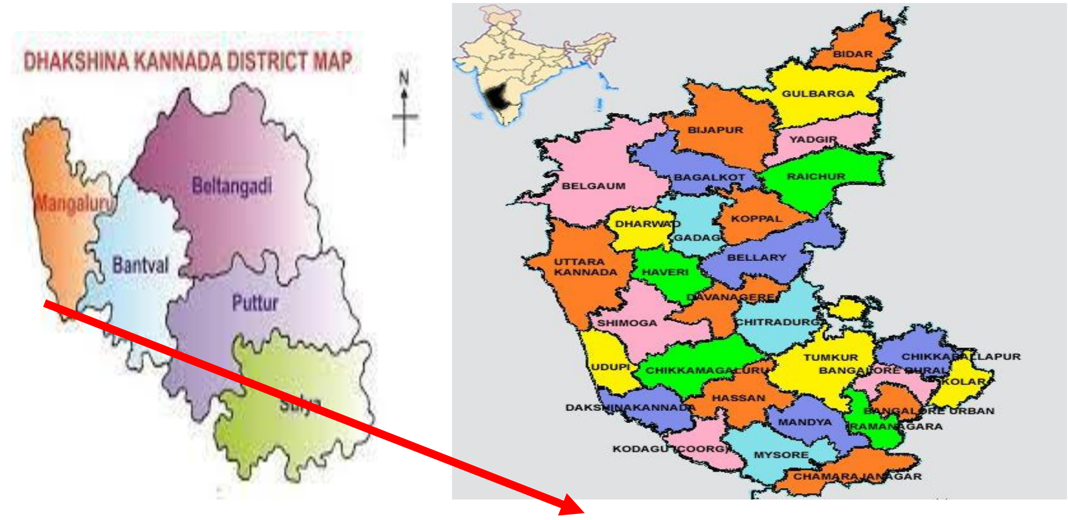
Good health not only promotes human development but it also allows people to attend work regularly and to be productive at work and thereby less vulnerable to poverty. Poor countries tend to be unhealthy, and unhealthy countries tend to be poor. Ensuring equitable and quality health and medical care services will go a long way in human development and quality of life.(GOK2015)A small initiative by the State Government of Karnataka. After all, for an individual who believes in the maxim "Health is Wealth", and has to live by it, there could be greater gift. Health is a state of complete physical mental and social wellbeing and is not merely absence of disease or infirmity". There are four major determinants of health, namely, heredity, nutrition, environmental and lifestyles. Except heredity, all other factors are within the control of the individual and the community. Health is an important component of economic development of a nation. Health is the most essential component of human life. Better health status leads to better productivity. The development of health is holistic process related to the overall growth and development of social, cultural, economic, educational and environmental factors. Healthy citizens are economically useful, progressive, and productive and thus, are an asset to the nation. Better the quality of citizens, better the quality of life. One of the major concerns of health organizations world over in general and India in particular is to provide sound health to every individual. In India the state government primarily provides health services. However, the Union Government contributes substantially through grants and centrally sponsored health programmes.

The main objectives of the study

1. To examine Primitive Tribal Groups to avail health benefits in assorted hospitals in Mangalore in Karnataka
2. To recognition of Health Smart Cards the prevalent Korga's families Healthcare.ITDP district of D.K in Karnataka

The area of the Study and maps

The Dakshina Kannada (erstwhile South Kanara) is one of the three coastal districts of Karnataka State with a geographical area of 4859 sq. Km. Located between the foothills of Western Ghats in the east and Arabian sea in the west, it is bordered by Udupi District to the north, Chikkamagaluru district to the northeast, Hassan District to the east, Kodagu to the southeast, and Kasaragod District in Kerala state to the south. The district has five taluks namely, Bantwal, Belthangady, Mangaluru, Puttur and Sullia. Mangaluru city is the district headquarters and the main city of the district.



The Health status of tribal women Efforts have been made to collect available literature on the health studies among different tribal women in the light of several parameters i.e. sex ratio, female literacy, marriage practices, age at marriage, fertility, mortality, life expectancy at birth, nutritional status and health, child bearing and maternal mortality, maternal and child health care practices, family welfare programme, sexually transmitted diseases and genetic disorders. Health is a function, not only of medical care but of the overall integrated development of society-cultural, economic, education, social and political. Each of these aspects has a deep influence on health which in turn influences all these aspects. Hence, it is not possible to raise the health status and quality of life of people unless such efforts are integrated with the wider effort to bring about the overall transformation of a society. Good health and good society go together (Basu, 1992). A smart card accessed by a portable reader can provide a first responder with vital medical information at the scene or en route to the hospital. Smart cards enable immediate identification of a patient and access to the patient's medical record, even when the patient is unconscious or too flustered to convey the entire medical picture accurately or when language barriers impede effective communication. Patients benefit from more immediate and improved treatment.. The tribals have no clear concept of Health. Their unfriendly habitat tends them to do hard work for getting food. So, only when somebody is seriously ill, will he be laid down and allowed to take rest. Conceived women are not interested in having regular medical check-up and taking modern medicines. The State is the home to 42,48,987 tribal people, of whom 50,870 belong to the primitive group. Although these people represent only 6.95 per cent of the population of the State, there are as many as 50 different tribes notified by the Government of India, living in Karnataka, of which 14 tribes including two primitive ones are primarily natives of this State. Extreme poverty and neglect over generations have left them in poor state of health and nutrition.(Subarna Roy,et .all 2015)Tribal population are particularly vulnerable to under nutrition, because of their geographical isolation, socio-economic disadvantage and inadequate health facilities. Adolescence is a significant period of growth and maturation. The nutritional status of adolescent girls, the future mothers, contributes significantly to the nutritional status of the community (Helegson, 2006). The 'Scheduled Tribes' are tribes or tribal communities as are deemed so under Article 342 of the Constitution. The Constitution of India authorizes the President of India to specify tribes to be notified as STs. Apart from the Scheduled Tribes, there are 75 indigenous groups in India known as "Primitive Tribal Groups". The Tenth Plan of the Central Government observes that these vulnerable communities have experienced a "decline in their sustenance base and the resultant food insecurity, malnutrition and ill-health has forced them to live in the most fragile living conditions and some of them are even under the threat of getting extinct".

The Good health is an invaluable asset for better economic productivity, both at the individual and national level, but above all, it is valued by those who own it as a prerequisite for a better quality of life and better standards of living. Sub-populations who are at the highest risk from poor health and its effects on longevity and morbidity are the poor, women, the Scheduled Castes and Scheduled Tribes.(KHDR,2005) .The Scheduled Castes (SC) and Scheduled Tribes (ST) are historically, socially and economically deprived communities. The Central and the State Governments have implemented several multifaceted and multi-pronged programmes for social and economic welfare of the STs to bring them into the mainstream development. Most of the government social programmes implemented have been found successful in provision of the basic livelihood amenities to the STs in the district. They are, at present not lagging very much behind other communities as regards primary and secondary education, housing, safe drinking water supply, electricity and sanitation. They, however, still lag behind the rest of the population in higher and professional education, access to healthcare facilities, high-end job market, access to productive assets and credit, business enterprises and standard of living. Most of them remained resource poor and in low-end labour jobs. The setting up separate colonies for STs with all infrastructures, though good, has adverse effect on their integration into mainstream society. Another important emerging issue is the existence of wide gaps among the sub-castes of the STs. All sub-casts among STs have not benefitted from government programmes equally. Among the STs, Koragas are still far behind economically and socially compared to other ST groups. The Tribal Sub-Plan was fi rst introduced in 1976-77 when it was implemented in fi ve Integrated Tribal Development Projects (ITDP) in the districts of Mysore, Chikmaglur, Kodagu and Dakshina Kannada (including Udupi). The second largest tribal groups are found in the state of Karnataka .The Koragas of Dakshina Kannada district classified as “primitive tribes”. The Koraga community is considered as 'Adivasis' (aboriginal natives) of erstwhile undivided Dakshina Kannada district. In 1956, the community was declared as STs and in 1986; they were treated as Primitive Tribal Group (PTG). The majority of the Koraga Community is residing in Udupi, DK and Kasargod districts.

Scheduled Tribes Groups in Mangalore District, Karnataka

The STs in the district include mainly Koragas, Malekudiyas and Marathi Naikas. Koragas are known as the original natives of erstwhile Dakshina Kannada district. They are distinctly different from others in the district in life style, cultural habits and traditional practices. In towns, they work as scavengers in the sanitary departments (DKDHR 2014) In recent years, they are employed by the sanitary department as scavengers in urban areas. The ITDP, Zilla Panchayat carried out a survey of Koraga community in the district and as per their study the taluk-wise distribution of the Koraga community is as given in Table No :1

Table No:1 Taluk-wise Population of Koraga Community in Mangalore district 2011

S.No	Taluks	Families (number)	Population			
			Male	Female	Total	Families rank in district
1	Mangaluru city	271	621	583	1204	2
2	Mangaluru (Rural)	503	1088	1114	2202	1
3	Bantwal	187	294	278	572	3
4	Belthangady	100	206	190	396	4
5	Puttur	113	195	188	383	5
6	Sullia	32	61	40	101	6
	District	**1206**	**2465**	**2393**	**4858**	**-**

Source: I.T.D.P. Zilla Panchayat, Dakshina Kannada District.

In the district, there are around 1,206 Koraga families including 774 families in Mangalore (urban-271, rural-503)The Nearly 70 percent (3406) of the community live in Mangaluru taluk. Sullia has the lowest number of Koraga families (32). Bantwal has 187 Koraga families, followed by Puttur (113). Sullia has the lowest number of Koraga families (32) Bantwal has 187, followed by Puttur, 113 families and Belthangady, 100 families.

Health smart cards is one of the prevalent korgas person Healthcare Scheme in the district. Offering a low priced product for a wide range of surgical cover, nearly 823 defined surgical procedures to the Korgas family members. It is a contributory scheme wherein the beneficiaries contribute a ITDP programmes every year to avail any possible surgery during the period. The beneficiaries are offered cashless treatment subject to conditions of the scheme at the important Network Hospitals reach from corner to corner the Mangalore distinct.

Health Smart Cards Interest Group Benefit Scheme Mangalore District in Karnataka

The distribution of smart cards to all Koraga families, the dream project of ITDP. The card will be of immense help to the Korga tribals members, as it contains information of the patient's last 50 treatments. The card operates on biometric identification system. The cardholder can use it in some of the hospitals in the district .The Cards also help to avail any other facilities which are being offered by ITDP for Koragas. Those who have not got smart cards can claim health benefits at recognised hospitals using a letter from the department.. Though government releases cost of treatment directly to hospitals under an arrangement now, the institutions provide treatment only after obtaining approval from the government case by case. Approvals take time as District Health Officer (DHO) will have to approve them after receiving the documents such as scans. Under the proposed scheme, this can be done online. This will become possible when authorities digitise data about them and issue smart cards under the Vinutana (New) scheme. At present, smart card registrations, information verification and data compilations are on in full-swing as the Integrated Tribal Development Project (ITDP) .It will benefit nearly 1,206 families or 4,858 persons — who come under the community recognised as a Primitive Tribal Group in the district. They can avail treatment at select private hospitals, the cost of which the department reimburses.

This (the new system) allows the process of approval to be much faster. The physician understood around 70 per cent of the information collected from the Koragas has been digitised so far; while smart cards have been distributed to 30 per cent of the Koraga population. Smart card would help Koragas to avail health benefits in various hospitals in Mangalore distinct in Karnataka. The distribution of smart cards to all Koraga families, the dream project of ITDP. The card will be of immense help to the Korga tribals members, as it contains information of the patient's last 50 treatments.The Physician also said that a maternal death rate in this community is higher than other communities. The surgery persons find out that smart cards have been distributed to all the members of the community and the details of the individuals will be available online within two months. Since the past one and half years Rs 45 lacs have been spent for the treatment of 89 families of this Koraga community.

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- The beneficiaries are offered cashless treatment subject to conditions of the scheme at the important Network Hospitals reach from corner to corner the Mangalore district

Distribution Smart Cards to PTGs Mangalore District in Karnataka

The Healthcare in India has undergone a sea-change in the last decade and today with the launch of Health smart cards scheme, it has touched the heart of Karnataka, the PTGs Mangalore. A small initiative by the State Government of Karnataka. After all, for an individual who believes in the maxim “Health is Wealth", and has to live by it, there could be greater gift. Since the launch in April, 2012, a total of 53 persons from the Koraga community have availed this facility, with a total disbursement of Rs. 25.68 lakh having been approved so far. The ITDP decided to extend Universal Health Care in all the three sectors of primary, secondary and tertiary care to all Koraga Primitive Tribal Group t community residents of Mangalore district Karnataka by pooling resources from various on-going schemes.The public Distribution System (PDS) card Number with a separator (-) and a sequential number for each member of the family that approaches a PHI for service and seeks to get enrolled.The Primitive Tribal Health Card provided will contain Photo, Name, Unique Scheme ID and Basic Details of the Beneficiary. An SMS alert will also be sent to the Enrolled Patient to his mobile number wherever the mobile number has been shared with the registration personnel.Once the Scheme card is generated the patient can access the treatment under the “smart cards” scheme.The beneficiary will not be required to carry his Adhaar card or Food card the next time he visits the hospital for treatment. They are will be serviced based on the smart cards.

The smart cards have already been distributed to more than 3,862 Koraga community individuals.

The distribution of smart cards to all Koraga families, the dream project of ITDP is in final stage and the officials have directed the taluk-level wardens to collect the data of remaining 149 Koraga families of Dakshina Kannada district within October (Deccan Herald, 2014) The Dakshina Kannada district is blessed with good health infrastructure and enviable public-private initiatives in provision of healthcare service.

Table No: 2 Koraga Primitive Tribal Group to Health Benefits Hospitals Mangalore District in Karnataka

S.No	Name of the Hospitals	Taluk
1	Kasthribha Medical Collage	Mangalore
2	Father Muller's Hospital	
3	AJ Hospital	
4	Yenepoya Hospital	
5	Srinivas Hospital	
6	Global Hospital	
7	City Hospital	Puttur,
8	Benaka Hospital , Ujire,	Beltangady
9	Abhaya Hospital	Beltangady
10	KVG Hospital	Sullia.

Source: I.T.D.P. Dakshina Kannada District

The above table shows that Mangalore taluk in six reputed hospitals and Belatangadi taluk two Puttur and Sullia each one hospital avail health care in private hospitals without a long wait for approvals from health officials. After the launch last year, KVG Hospital in Sullia joined the list of private hospitals to offer the scheme in September. This is in addition to the tie-ups with A.J. Hospital and Research Centre, Father Muller Hospital and College, Kasturba Medical College, Yenepoya Hospital (all in Mangalore); Abhaya Hospital in Belthangady; and City Hospital in Puttur. A landmark initiative has come as a great boon to the Korgas in the district ,The Scheme is implemented for the PTGs their families. The Health Cards also help to avail any other facilities which are being offered by ITDP for Koragas. They can avail treatment at choose private hospitals, the cost of which the department reimburses

Problems the Health Cards to Korgas Primitive Tribal Group

The problem in collecting details of around 149 Koraga's families. Many families at Kerala border live a life of nomads. Whenever officials go to collect information.

Conclusion

The Health Security Card, a smart card, contains essential information for health care providers, and local, tribal, and state health departments to identify individuals, meet their immediate health needs, improve access critical data, and better obtain surveillance and situational awareness, thereby minimizing morbidity and mortality. Healthcare in India has undergone a sea-change in the last decade and today with the launch of Health smart cards scheme, it has touched the heart of Karnataka. The landmark initiative has come as a great boon to the Korgas in the district .The Scheme is implemented for the PTGs their families. The Cards also help to avail any other facilities which are being offered by ITDP for Koragas. They can avail treatment at choose private hospitals, the cost of which the department reimburses.The Name of the PTGs korags through Integrated Tribal Development Programme district of Mangalore in Karnataka. The Smart card would help Koragas to avail health benefits in various hospitals in Mangalore distinct in Karnataka

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An analytical Study on Current Status, Challenges and Measures to counter the challenges of the Insurance Sector in India.

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Abstract: Indian economy is in transition over the last ten years, owing to the initiation of major economic reforms affecting almost all sectors. The paradigm shift from a mixed economic organization to a market – oriented organization has exposed all sectors to an intense competition; insurance business is the most significant one among them. Insurance is an attractive option for investment. While most people recognize the risk hedging and tax saving potential of insurance, many are not aware of the advantages as an investment option as well. This paper attempts to make an analysis of current status, challenges of insurance business and suggests measures to counter the challenges faced by the insurance sector in India.
Keywords: Insurance, Premium, Policy, Density, Penetration.

Introduction

Insurance is an attractive option for investment. While most people recognize the risk hedging and tax saving potential of insurance, many are not aware of the advantages as an investment option as well. Insurance products yield more compared to regular investment options and this is besides the added incentives offered by insurers. An insurance product cannot compare with other insurance investment schemes for the simple reason that it offers financial protection from risks, something that is missing in non-insurance products. Insurance is a unique investment avenue that delivers sound returns in addition to protection. Designed to safeguard against losses suffered due to any unforeseen events, insurance provides the investor with unique sense of security that no other form of investment provides Insurance also provides a safeguard in the case of accidents or a drop in income after retirement. An accident or disability can be devastating; an insurance policy can lend timely support to the family in such times. It also comes as a great help when people retire.

Current Scenario of Insurance Business: **In the Global Scenario:**

Globally, the share of life insurance business in total premium was 56.2%.However; the share of life insurance business for India was very high at 79.6% while the share of non –life insurance business was small at 20.4%. In life insurance business, India is ranked 11th among the 88 countries, for which data is published by Swiss Re. India’s share in global life insurance market was 2.00% during 2013.However, during 2013, the life insurance premium in India declined by 0.5 % (inflation adjusted) when global insurance premium increased by 0.7% The Indian non- life insurance sector witnessed a growth of 4.1 % (inflation adjusted) during 2013.During the same period, the growth in global non-life premium was 2.3 %. However, the share of Indian non-life premium in global non-life insurance premium was small at 0.66% and India ranks 21st in global non-life insurance markets.

In the Indian Context:

Table 1 - Insurance penetration and density in India

Year	Life		Non-Life		Industry	
	Density (USD)	Penetration (%)	Density (USD)	Penetration (%)	Density (USD)	Penetration (%)
2008	9.1	2.15	2.4	0.56	11.5	2.71
2009	11.7	2.59	3	0.67	14.7	3.26
2010	12.9	2.26	3.5	0.62	16.4	2.88
2011	15.7	2.53	4	0.64	19.7	3.17
2012	18.3	2.53	4.4	0.61	22.7	3.14
2013	33.2	4.1	5.2	0.6	38.4	4.8
2014	40.4	4	6.2	0.6	46.6	4.7
2015	41.2	4	6.2	0.6	47.4	4.6
2016	47.7	4.6	6.7	0.6	54.3	5.2
2017	55.7	4.4	8.7	0.71	64.4	5.1
2018	49	3.4	10	0.7	59	4.1
2019	42.7	3.17	10.5	0.78	53.2	3.96
2020	41	3.1	11	0.8	52	3.9

Insurance density is measured as ratio of premium (in USD) to total population.

Insurance penetration is measured as ratio of premium (in USD) to GDP (in USD).

The data of insurance penetration is available with rounding off to one digit after decimal from 2006.

Source: Swiss Re, Sigma, Various issues.

Table 2 - Total Premium underwritten by life insurers

(Rs. In crores)

Insurer	2018-19	2019-20
LIC	208803.58(2.92)	236942.30(13.48)
Private Sector	78398.91(-6.87)	77340.90(-1.35)
Total	287202.49(0.05)	314283.20(9.43)

Source: IRDA Annual Report 2019-20

From the Table 2, it can be seen that the premium undertaken in India and abroad by life insurers in 2019-20 is increased by 9.43% over the previous year.

Note: Figures in brackets indicate the growth (in per cent) over the previous year.

Table 3 – Registered Insurers in India

(As on 30th September, 2020)

Type of business	Public Sector	Private Sector	Total
Life Insurance	1	23	24
Non-Life Insurance	6	22	28
Reinsurance	1	0	1
Total	8	45	53

Source: IRDA Annual Report 2019-20

From the Table 3, it can be observed that as on 30th September, 2019 at the end of March 2020, there are 53 insurance companies operating in India; of which 24 are in the life insurance business and 28 are in non-life insurance business. In addition, GIC is the sole national reinsurer. Of the 53 companies presently in operation, eight are in the public sector – two are specialised insurers, namely ECGC and AIC, one in life insurance namely LIC, four in non-life insurance and one in reinsurance. The remaining forty five companies are in the private sector.

Table 4 - Market share of life insurers

(In per cent)

Insurer	2018-19	2019-20
LIC	72.70	75.39
Private Sector	27.30	24.61
Total	100.00	100.00

Source: IRDA Annual Report 2019-20

From the Table 4, it can be seen that on the basis of total premium income, the market share of LIC increased from 72.70 per cent in 2018-19 to 75.39 per cent in 2019-20. Accordingly, the market share of private insurers had declined from 27.30 per cent in 2018-19 to 24.61 per cent in 2019-20.

Table 5 - New policies issued: Life Insurers

(In lakh)

Insurer	2018-19	2019-20
LIC	367.82(2.88)	345.12(-6.17)
Private Sector	74.05(-12.28)	63.60(-14.11)
Total	441.87(-0.01)	408.72(-7.50)

Source: IRDA Annual Report 2019-20

From the Table5, it can be seen that during 2019-20, life insurers issued 408.72 lakh new policies, out of which LIC issued 345.12 lakh policies (84.44 per cent of total policies issued) and the private life insurers issued 63.60 lakh policies (15.56 per cent). While LIC registered a decline of 6.17 per cent (2.88 per cent growth in 2018-19) in the number of new policies issued against the previous year, the private sector insurers continued the previous year's experience of significant decline and reported a dip of 14.11 per cent (12.88 per cent decline in 2018-19)in the number of ne policies issued.

Table 6 - Paid Up Capital: Life Insurers

(In crores)

Insurer	As at 31st March 2018	Additions during 2019-2020	As at 31st March 2020
LIC	100.00	0.00	100.00
Private Sector	25418.73	419.78	25838.51
TOTAL	25518.73	419.78	25938.51

Source: IRDA Annual Report 2019-20

It can be observed from the above table that the total capital of the life insurance companies as on 31st March 2020 was Rs.25938.51 crores. During 2019-2020, an additional capital of Rs.419.78 crore was brought in by the private sector insurers

Table 7 - Gross Direct Premium Income In India: Non-Life Insurers

(Rs. In crores)

Insurer	2018-19	2019-20
Public Sector	35022.12(14.60)	38599.71(10.21)
Private Sector	27950.53(25.25)	32010.30(14.52)
Total	62972.65(19.10)	70610.02(12.13)

Source: IRDA Annual Report 2013-14

Note: Figures in brackets indicate growth in per cent over previous year. Table 7 reveals that the non-life insurance industry had underwritten a total premium of Rs.70610 crore in India for the year 2019-20 as against Rs.62973 crore in 2018-19, registering a growth of 12.13 per cent as against an increase of 19.10 per cent recorded in the previous year. The public sector insurers exhibited growth in 2019-20 at 10.21 per cent; over the previous year's growth rate of 14.60 per cent. The private general insurers registered growth of 14.52 per cent, which is lower than 25.26 per cent achieved during the previous year.

Table 8 - New policies issued: Non-Life Insurers

(In lakh)

Insurer	2018-19	2019-20
Public Sector	689.68(30.59)	600.06(-12.99)
Private Sector	380.56(15.57)	424.47(11.54)
Total	1070.24(24.82)	1024.52(-4.27)

Source: IRDA Annual Report 2019-20

Excluding Standalone Health Private and Specialised Insurers Note: Figures in brackets indicate the growth (in per cent) over previous year.

Table 8 discloses that the non-life insurers underwrote 1,024.52 lakh policies in financial year 2019-20 against 1,070.24 lakh policies underwritten in financial year 2018-19. The public sector insurers witnessed considerable decline in the number of policies issued. They reported a 12.99 per cent decrease in number of policies issued during financial year 2019-20 as compared to a 30.59 per cent increase in financial year 2018-19. The private sector insurers reported a growth of 11.54 per cent in the number of policies issued in the financial year 2019-20 (15.57 per cent in the financial year 2018-19).

. **Table 9 - Paid Up Capital: Non-Life Insurers**

(In crores)

Insurer	As at 31st March 2019	Additions during 2019-2020	As at 31st March 2020
Public Sector	600	Nil	600
Private Sector	5975	251	6226
TOTAL	6575	251	6826

Source: IRDA Annual Report 2019-20

Note: Excludes Share premium and Share application money. Table 9 discloses that the total paid-up capital of non-life insurers as on 31st March, 2019 was Rs.9520 crore. During 2019-20, the non-life insurers added Rs. 720 crore to their equity capital base. Public sector insurers infused no further capital whereas specialized institution ECGC infused a further capital of Rs.100 crore . Private sector insurers infused further capital to the extent of Rs.251 crore.

Challenges for Insurance Business in India

The transition of the insurance industry from a public monopoly to a competitive environment now presents very interesting challenges, both to the new players and to the customer. The benchmark of success of organization is not only determined by the rate of return but also by the quality of corporate governance. So good corporate governance practices should be followed by the companies as well as by the regulator. Though LIC has done commendable work, there is still a great deal of scope for bringing in innovative products and distribution channels to tap insurance market. Currently the product-market relationship is dominated by personalized selling rendered by tied agents. So the agents should be able to understand the complexity to assess the requirement of the populace and then only advice on the appropriate policy, which suits, to the needs of the population. Also, companies will have to transform customer relationship management to the value-based client relationship. The CRM challenge will have the pyramid of three sub-challenges i.e. Product development, pricing mechanism, and technology management. Insurance business is based on averages and spreading of risks. So, a flexible pricing structure for sustaining customer confidence and interest will be a challenging task before Indian issuers. The majority of insurance companies today are under tariff, that means insurance companies cannot price the product to suit the customer of customer group. The way to service customer is to segment the market and offer the correct product at the correct price to that market segment. There is a huge untapped potential in India, which needs to be targeted. The distribution channel is a medium to reach the masses in urban, semi-urban and rural areas. So, the insurance company should focus on pricing, distribution, risk management and investment decision-making.

Measures to Counter the Challenges of Insurance Business in India

Insurance companies in India will have to develop appropriate channels to tap this huge market as the core of insurance business hinges on an efficient distribution. Direct marketing is one of the most successful channels of distribution in the developed economics. It is a great way to reach a large population. So the product should be sold through telemarketing or direct mail. In the insurance business, cost control and ability to serve a large number of customers are crucial issues. So, modern technology is to be adopted to handle both the services effectively. Today, customers are well-equipped with information, so insurance companies should reposition different products by changing customer attitudes. The actuary should be required to attend minimum number of seminars called continuous professional development courses for financial control of the organisation.

Conclusion

From the above it can be concluded that the insurance business is growing at an annual rate of 21.9%. However the insurance penetration in the country is very poor. The insurance markets have witnessed a dynamic change which includes presence of a fair number of both life and non-life segment. Most of the private insurance companies have formed joint venture with recognised foreign players across the globe. To achieve success in the marketing of the insurance products, the entire business environment is required to be considered. The strategies are to be adopted based on the dynamics of the market trends. To be successful, a company must have quality people, innovative management, be able to employ technology effectively, besides having the right products and distribution channels.

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A Study On Employee Grievance And Redressal Procedures In Tamilnadu State Transport Corporation Limited

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DOI- 10.5281/zenodo.7052905

Abstract:
The personnel or industrial relations department of the organization is responsible for maintaining peace and harmony among employer and employee. The healthy relations between employer/management and employee/worker can be achieved through the agreed solutions for different problems. A worker who isdissatisfied may not work at full capacity and cause significant loss of production. Grievances are the expressed complaints about working conditions and environment in which employee work. It is related with day to day work. Grievances emerge out of the dissatisfaction of workers it may be as an individual or asa group. Thus, management strive hard to resolve workers complaints and grievances. Effective grievance handling is an essential part of cultivating goodemployee relations and running a fair, successful, and productive workplace. This paper examines nature and reasons of employee grievances, illustrategrievances handling procedure, and comprehend consequences of mishandling grievances at the workplace.
Catchpharses: Employer**,** Grievance handling procedure, Grievance handling machinery, Worker.

Introduction

Diversity at workplace is high today as employees from different age group, nationality, gender, ethnic and religious backgrounds are forming part of the workforce team. Amid this situation, miscommunication and misunderstanding are likely to happen if the diversity at workplace is not handled properly. This will also affect the employees' morale and productivity of the organization. Even, due to the technological advancement in communication media, a small problem or misunderstanding may be blew to a big issue through different social media. Such issue may affect the employers' image, which cause unnecessary embarrassment to the management. Sometimes, such grievances may also cause more expensive to the organization and also time consuming litigations. Management, need to look these types of grievances with high priority by adopting a favourable working environment and fair employment practice. It can be managed if the grievance handling procedures (GHP) are adopted properly by the organization. Both the employees and employers need to understand the nature of grievances and the ways of resolving it so as to get satisfaction by both parties. The key reason of grievance redressal procedure is not to resolve or settlement of the grievances but to maintain industrial harmony between the stakeholders.

Review Of Literature`

Baldev R. Sharma and Sundararajan P.S. (1983) in their study on "Organisational Determinants of Labour Management relations in India" investigated factors determining labour management relations in 50 companies. Of the nine factors studied, the two included in the best equation scope for advancement and grievance handling were found to be the most critical determinants. Together these two factors accounted for 58 percent of the variation in labour management relations across the 50 companies.

Menon P.K.S.(1983) in his study on "Personnel Management in Banks" examined the procedures, practices and policies prevalent in personnel administration in banks in India. He identified that behind the facade of trade unionism the bullies influenced every facet of management whether it was collective bargaining, grievance procedures, disciplinary matters, departmental enquiries or employee managerial relations.

Gordon and Miller (1984) suggested that, any item in the union contract can be the subject of a grievance. However, there is general agreement that discipline is the single most frequent issue grieved. The available grievance processing research indicates that most grievances are resolved within the first two steps of the grievance procedure, and that most of the resolutions occur within two months of the filing date (Delaney et al., 1989; Gideon and Peterson, 1979). The fact that arbitration is a relatively time consuming and expensive grievance resolution step helps explain why unions and employers use arbitration relatively sparingly.

Objective Of The Study.

1. To study the nature of grievances faced by Tamilnadu State Transport Corporation – Villupuram Division.
2. To assess the methods adopted by Tamilnadu State Transport Corporation – Villupuram Division to redress the employees grievances.
3. To find out the level of employees' awareness about labour laws adopted inside the organization.

Tools for analysis

The statistical gear was used for the cause of the evaluation of this take a look at is straightforward percentage method . After the gathering of records via the questionnaire, editing became achieved cautiously. Based on the responses of the samples, the tables were prepared. The statistics accumulated were analyzed and interpreted with the help of tables.

Analysis and Interpretation

Table No. 1: Frequency and Percentage Distribution of the Designation of the Respondents

Designation	Frequency	Percent
Driver	175	58
Conductor	125	42
Total	300	100

Source: Primary data

Above table that Frequency and percentage distribution of the designation of the respondents are given in the above table. It is observed that 58 percent of the respondents are drivers while the remaining 42 percent of the respondents are conductors.

Table No. 2: Frequency and Percentage Distribution of the Age of the Respondents

Age	Frequency	Percent
Less than 31 years	30	10
31 to 40 years	150	50
41 to 50 years	50	17
Above 50 years	70	23
Total	300	100

Source: Primary data

Table shows frequency and percentage distribution of the age of the respondents. It is noted that majority (50%) of the respondents are in the age category of 31 to 40 years, while 23 percent of the respondents are in the age category of above 50 years, and 17 percent of the respondents are in the 41 to 50 years age group. However, 10 percent of the respondents fall under less than 31 years of age group.

Table No. 3: Frequency and Percentage Distribution of the Educational Qualification of the Respondents

Educational Qualification	Frequency	Percent
School level	150	50
Diploma/Graduate	120	40
Postgraduate	30	10
Total	300	100

Source: Primary data

Frequency and percentage distribution of the educational qualification of the respondents is shown in the above table. It is observed that majority (50%) of the respondents have completed only school level of education while 40 percent of the respondents have the educational qualification of diploma or graduation. Further it is noted that 10 percent of the respondents have hold post-graduation degree which proves that majority of the employees who work as drivers and conductors do not possess higher educational qualification.

Table No. 4: Frequency and Percentage Distribution of the Marital Status of the Respondents

Marital Status	Frequency	Percent
Single	120	40
Married	180	60
Total	300	100

Source: Primary data

Table shows that frequency and percentage distribution of the marital status of the respondents. It is noted that majority (60%) of the respondents are married whereas 40 percent of the respondents are living as singles, which shows that family commitments are more for the majority of the employees who work as conductors and drivers.

Table No. 5: Frequency and Percentage Distribution of the Experience of the Respondents

Experience	Frequency	Percent
Less than 6 years	40	13
6 to 10 years	120	40
11 to 15 years	70	24
16 to 20 years	48	16
21 to 25 years	12	04
More than 25 years	10	03
Total	300	100

Source: Primary data

Frequency and percentage distribution of the experience of the respondents is shown in the above table. It is observed that majority (40%) of the respondents are having 6 to 10 years of experience, while 24 percent of the respondents are having 11 to 15 years of experience. 16 percent of the respondents are coming under 16 to 20 years of experience category and 13 percent of respondents have less than 6 years of work experience. Further it is noted that 4 percent of the respondents have 21 to 25 years of experience, and only 3 percent of the respondents have more than 25 years of experience. Hence, it is concluded that majority of the respondents who work as drivers and conductors have more than 10 years of experience.

Table No. 6: Frequency and Percentage Distribution of the Family Type of the Respondents

Family Type	Frequency	Percent
Joint family	180	60
Nuclear family	120	40
Total	300	100

Source: Primary data

Table shows that frequency and percentage distribution of the family type of the respondents. It is noted that majority (60%) of the respondents live in joint family whereas 40 percent of the respondents live as nuclear family.

Findings

It is observed that 58 percent of the respondents are drivers while the remaining 42 percent of the respondents are conductors.

It is noted that majority (50%) of the respondents are in the age category of 31 to 40 years

It is observed that majority (50%) of the respondents have completed only school level of education.

It is noted that majority (60%) of the respondents are married whereas 40 percent of the respondents.

It is observed that majority (40%) of the respondents are having 6 to 10 years of experience.

It is noted that majority (60%) of the respondents live in joint family.

Conclusion

Grievances emerge out of the dissatisfaction of workers it may be as an individual or as a group. Grievances are the expressed complaints about working conditions and environment in which employee work. It is related with day to day work. Nature of grievance may be at individual or at group level, immediate attention and patient hearing from superior is required for amicable industrial relations. Effective grievance handling is an essential part of cultivating good employee relations and running a fair, successful, and productive workplace. It is advisable to set up an effective grievance procedure in the organization. The procedure should be flexible enough to meet the requirements of the organization. It should be simple so that an average employee is able to understand it.

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Corporate Social Responsibility of selected FMCG companies in India during COVID 19 Pandemic – A Review Analysis.

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DOI- 10.5281/zenodo.7053103

Abstract:

Corporate social responsibility (CSR) has historically been an option for businesses looking to boost their reputation in the community and demonstrate their commitment to good corporate citizenship. However, the COVID 19 pandemic has significantly affected the industry. Companies are now realising how dramatically and abruptly their connection with their stakeholders has changed. The financial burden on the government, companies, and people has increased due to the corona virus pandemic. In order to better understand the corporate social responsibility (CSR) activities carried out by various companies in India during the COVID 19 pandemic, this research paper has made a review and analysis of a comparative study on the CSR initiatives of some companies in India during the COVID 19 pandemic. To learn about the actions done by the businesses for the benefit of the country, society, and individuals as well, a number of business case studies have been analysed.

Keywords: Fast-moving consumer goods (FMCG), COVID 19 Pandemic, Contribution, Rural Development, Corporate Social Responsibility (CSR) initiatives.

Introduction:

The idea behind corporate social responsibility (CSR) stems from the idea that because businesses interact with society and use its resources, they have a moral obligation to do so. An organisation fulfils its obligations to the environment, workers, communities, stakeholders, customers, and other societal members when it implements CSR principles.

The following justifications explain why CSR is becoming more significant:

i. Public Expectations from the Enterprise - This relates to what the general public expects of an enterprise, whether they are connected to it directly or indirectly. If the business satisfies the requirements, wants, and demands of society, it can operate peacefully. However, it would be challenging for an organisation to continue to operate if it did not meet societal expectations. Therefore, if a company wants to stay in business over the long term, it must cater to the requirements of society.

ii. Better Business Environment - This refers to creating a conducive environment for an enterprise's business activities. The atmosphere for the enterprise is beneficial if society is pleased with the company's business operations.

iii. A positive public image - aids a business in attracting more clients and better workers. Building and sustaining a positive public image, thus, aids in enhancing business performance.

iv. Power and Responsibility - This is a crucial issue that needs to be properly balanced. An organisation has social power because its actions affect the environment, customers, employees, and numerous other facets of society. Therefore, any decision that is made inequitably could have a detrimental impact on society's well-being.

A company's responsibilities include:

The following are some examples of an enterprise's obligations:

i. Economic responsibility - Economic responsibility is the obligation of the business to provide goods and services to the community. To be able to pay employees' wages, make payments to creditors and other stakeholders, and generate regular profits, the business must set a fair and reasonable price for its products.

ii. Legal Responsibility - This concept relates to an organization's obligation to uphold the law. These obligations under the law are made by the government and automatically become regulations that businesses must abide by. For instance, the government establishes environmental rules to reduce noise, water, and air pollution and maintain the ecosystem. All factories must abide by these laws in order to maintain efficient business operations and prevent legal action.

iii. Ethical Responsibility - This concept refers to an organization's legal obligation to uphold society's moral and ethical norms. The people who make up the society anticipate that businesses would act to stop unethical behaviour and adhere to social norms.

iv. Discretionary Responsibility - This refers to the company's moral duty to the community. It includes the obligation of the business to contribute to the welfare of society, such as through educating the impoverished and educating unskilled workers. Discretionary authority is entirely a matter of choice.

The fourth-largest economic sector in India is the fast-moving consumer goods (FMCG) business. The sector has grown significantly as a result of rising public knowledge, improved access to goods and services, and changing lifestyles. With more newlyweds choosing to rely on quick and simple domestic and culinary solutions, the business is expected to expand. Numerous industry participants have committed their CSR funds in India to address these challenges because the sector is skilled at offering solutions for concerns like nutrition and sanitation, among others.

Review of Literature

Pooja Yadav and Dr. Abhaya Ranjan Srivastava's (2021) paper from has provided The financial burden on the government, companies, and people has increased due to the corona virus pandemic. Therefore, the focus of this research article is to better comprehend the corporate social responsibility (CSR) initiatives taken by different commercial organisations in India during the COVID 19 pandemic. To learn about the actions done by the businesses for the benefit of the country, society, and individuals as well, a number of business case studies have been analysed. Prof. Pavankumar C. Ramgouda, Dr. Praveen B. Patil. (2021), He came to the conclusion in this article that both HUL and ITC Ltd. make significant contributions to society through their different CSR projects and programmes. They are primarily concentrating on rural development, health and hygiene, women's empowerment, and education. Bala Krishnamoorthy and Poojaa Gokarna (2021), Through exploratory research, this study offers insights into the CSR tactics used by Indian corporations during the COVID-19 pandemic. The study is based on semi-structured interviews with 27 CSR managers who help their firms strategize and carry out CSR initiatives. The findings highlight the dedication demonstrated by corporations to reducing the effects of the virus through a variety of CSR initiatives. As a result, this study contributes to our understanding of CSR and serves as a foundation for future studies on COVID-19 and CSR.

Objectives of the research:

1. To go over Corporate Social Responsibility's significance.
2. To learn about certain FMCG companies' CSR efforts in India during the COVID 19 pandemic Research Methodology:

Purpose of the study: The purpose of the study was to comprehend the value of corporate social responsibility for commercial enterprises as well as the key areas in which the businesses focused their CSR efforts throughout the pandemic.

Data collection: For this article, we only used secondary data, which we obtained by looking through a variety of internet databases, journals, conference proceedings, research papers, annual reports of selected organisations, company websites, etc.

FMCG Companies' Spending on CSR Projects:

Let's examine the five FMCG firms in India that prioritise CSR in this environment.

Hindustan Unilever:

HUL is dedicated to managing and expanding its company in a socially conscious manner. Their goal is to expand their business while minimising the negative effects of their activities on the environment and enhancing the benefits to society. In the last five years, the corporation has spent more than 500 crores on its CSR initiatives, consistently exceeding the minimum required under CSR law. With the help of its CSR money, Hindustan Unilever Limited tackles problems affecting India's development. In the areas of water conservation and addressing health and hygiene problems at the community level, it has had great success. Through the Hindustan Unilever Foundation, the corporation carries out its CSR projects (HUF). The non-profit serves as a vehicle for Hindustan Unilever Limited's environmental and community development projects pertaining to water management. With an emphasis on empowering local community institutions to manage water resources and enhancing farm-based livelihoods through the adoption of wise water management techniques, HUF runs the "Water for Public Good" initiative. Since 2010, 23 NGOs and over 4,300 villages in India have partnered with HUF to promote grassroots interventions in 53 districts.

ITC Limited:

ITC has been concentrating its CSR efforts on India's rural development. In 2019–20, the corporation spent more on CSR efforts than in any prior year, at Rs. 326.49 crores. The company is actively involved in social programmes in the fields of sport, culture, sustainable agriculture, healthcare, and digital literacy. ITC Choupal is a long-running flagship CSR programme by the business that has elevated community development internationally to a gold standard. Through digital literacy and economic empowerment, ITC Choupal has not only helped thousands of farmers over the years, but it has also been copied by a large number of other corporations for social welfare in their own communities. ITC has led a CSR initiative to enable the creation of an eco-system that would lead to significant livelihood generation for farmers and daily wage earners under the ambit of the Government's MGNREG Scheme. This is in keeping with its commitment to put Nation First and in response to the needs arising out of the lockdown implemented to contain the first wave of COVID-19 pandemic.

During the second wave, the company supplied oxygen cryogenic canisters to oxygen concentrators and generators in an effort to lessen the situation. ITC partnered with Linde India to airfreight 24 cryogenic ISO containers, each weighing 20 tonnes, from Asian nations in order to deliver medical oxygen across India. This served the national priority of alleviating the bottleneck associated with transporting medical oxygen. The CSR project follows a severe medical oxygen shortage that is limiting the ability of the healthcare sector to treat coronavirus patients.

A significant quantity of oxygen concentrators are also transported to ITC for distribution. The organization's paperboards unit in Bhadrachalam has started supplying nearby areas with oxygen.

Britannia:

Britannia CSR places the greatest emphasis on healthcare and nutrition in India. With its many undernutrition and malnutrition solutions, the company has a positive impact on the community. A significant part of Britannia's CSR strategy is nutrition research and development. The business established the Britannia Nutrition Foundation (BNF), which has been around for more than ten years, to carry out its CSR initiatives to address these concerns. Its main objective is to uphold every child's right to nutrition and growth. BNF operates lengthy, reproducible programmes in a number of states. Considering that BNF is in charge of ensuring the health and vitality of the entire community in which it operates, community development is regarded as a focus area.

The business supports reducing, recycling, and recovering plastic when it comes to use in production and the supply chain. The R&D team is looking for ways to use less plastic in the distribution system, manufacturing, and office spaces. Plastic trays were taken out of the product lineup as one stage. In keeping with the circular economy that reputable international companies are adopting, research and development is focused on developing 100% reusable packaging.

In times of need, Britannia CSR steps forward to help the populace. Without a doubt, the COVID-19 epidemic is the worst humanitarian catastrophe the world has ever experienced. The corporate social responsibility team at Britannia organised its personnel and assets to support individuals in need. The provision of vital meals was at the top of the list of actions taken in reaction to the pandemic because food is the company's primary line of business. In 19 states, the Wadia Group distributed 1.35 billion meals (and meal equivalents) and 90 lakh packs of biscuits and bakery goods. The team sent out personnel in the infrastructure of the supply chain and collaborated with organisations to deliver vital meals to the people whose lives had been upended by the coronavirus. Daily wage labourers, migrant families, and domestic helpers who had lost their jobs to low-income families and anganwadis were given nourishing food.

Marico:

The concept of social responsibility is seen at Marico Limited as a moral and ethical duty rather than as a requirement. Across the board, the company aspires to "Make a difference." Chairman Harsh Mariwala is deeply committed to philanthropy, social welfare, and combating climate change. In FY 2019–20, Marico spent Rs 19 crores on initiatives promoting community welfare. In order to establish and uplift the local communities in and around operations while fostering a harmonious relationship with them, the company has created community sustenance initiatives. Kalpavriksha, the company's major CSR initiative, aims to improve the well-being and output of coconut growers. As part of Kalpavriksha, several important activities are promoted, including improved crop productivity now, hybrid plantation, replantation, proper water management, and use of technological intervention. Under its aegis, Kalpavriksha has also begun a number of programmes in many fields, including training, a digital channel, and agricultural care workers. The corporation contributed Rs. 12 crores to the effort to contain the epidemic during the COVID crisis. In some places, the corporation gave sanitizers worth Rs. 1 crore to front-line workers like government agencies, the police, hospitals, and medical staff. The business committed to working with GiveIndia to raise Rs. 2 crore. The money will be used to enhance the healthcare system in the fight against COVID-19 by funding a number of hospitals. The organisation has promised to match every rupee given by an individual in order to reach its goal.

Findings:

- The ITC Limited firm spent Rs. 326.49 crores on CSR projects for one year.
- The Hindustan Unilever company spent more than 500 crores on its CSR operations in the last five years.
- In the past year, Nestlé India Limited has invested more than 38.31 crores in its CSR initiatives.
- In the past year, Britannia Nutrition Foundation has invested more than 2.25 crores in their CSR initiatives.
- Marico spent 19 crores of rupees on CSR initiatives in the past year.

Conclusion:

Through the Hindustan Unilever Foundation, the corporation carries out its CSR projects (HUF). The non-profit serves as a vehicle for Hindustan Unilever Limited's environmental and community development projects pertaining to water management. With an emphasis on empowering local community institutions to manage water resources and enhancing farm-based livelihoods through the adoption of wise water management techniques, HUF runs the "Water for

Public Good" initiative. Since 2010, 23 NGOs and over 4,300 villages in India have partnered with HUF to promote grassroots interventions in 53 districts. ITC partnered with Linde India to airfreight 24 cryogenic ISO containers, each weighing 20 tonnes, from Asian nations in order to deliver medical oxygen across India. This served the national priority of alleviating the bottleneck associated with transporting medical oxygen. The CSR project follows a severe medical oxygen shortage that is limiting the ability of the healthcare sector to treat coronavirus patients. Nestle is a firm believer in forming alliances with many stakeholders, such as local governments, academic institutions, civil society organisations, and so forth. During the fiscal year 2018–19, Nestle India Limited spent more on CSR initiatives than the required 2%. Although INR 38.07 crore was the required CSR spending as per Section 135 of the Companies Act, 2013, INR 38.31 crore was actually spent on CSR throughout the year. The provision of vital meals was at the top of the list of actions taken in reaction to the pandemic because food is the company's primary line of business. In 19 states, the Wadia Group distributed 1.35 billion meals (and meal equivalents) and 90 lakh packs of biscuits and bakery goods. The corporation contributed Rs. 12 crores to the effort to contain the epidemic during the COVID crisis. In some places, the corporation gave sanitizers worth Rs. 1 crore to front-line workers like government agencies, the police, hospitals, and medical staff. The business committed to working with GiveIndia to raise Rs. 2 crore. The money will be used to enhance the healthcare system in the fight against COVID-19 by funding a number of hospitals.

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Study of Zooplankton Diversity of Small Lentic Ecosystem, Lohara, Gondia, Maharashtra, India

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DOI- 10.5281/zenodo.7053293

Abstract:

Zooplankton ubiquitously present in all the freshwater bodies of World. The study of Zooplankton structure of the fresh water body reflects the ecological health of it. The study of Zooplankton biodiversity is helpful in evaluating the trophic status of that water body. The present study is carried out in the small lentic ecosystem present at village Lohara of Gondia district. Study reveals that pond harbours total 29 genera of Zooplankton among which 17 genera belongs to group Rotifera followed by Cladocera with 7 genera and 5 genera of Copepoda. High dominance of Rotifers in the water body especially genus *Brachionus* indicating presence of high percentage of suspended particles in it which leads to slight Eutrophication. The present investigation may help the concerned authorities to conserve the water body for the future.

Keywords: Zooplankton, Lentic Ecosystem, Rotifers, Diversity**.**

Introduction

Fresh water lentic ecosystems are probably the most productive wetlands in the world. One of the most inseparable biotic components of this ecosystem is the Zooplankton. They are the most heterogeneous miniscule organisms found in any aquatic ecosystem. This taxonomic group of organisms comprises protozoa, Rotifera, Copepoda, Cladocera and Ostracoda which are usually equipped with body spines that protect them from their enemies (Verma *et al.,* 2013). Due to high densities, drifting nature, high species diversity and stress tolerance they become inevitable part of aquatic food chain where they efficiently transfer energy from lower trophic level i.e. autotrophs to the higher level i.e. heterotrophs (Bhat *et. al*., 2014). They add significantly to aquatic biological productivity in fresh water ecosystem (Nimbalkar et al., 2013). Zooplanktons are Susceptible for any changes in climatic conditions and Physico-chemical properties of water and plays a pivotal role in indicating presence or absence of fish species (Koli and Muley, 2012; Babre et al., 2019). Zooplankton are excellent fish food, rich in proteins, vitamins and fatty acids (Akin-Oriola, 2003). Zooplanktons are very good indicators of aquatic pollution therefore their abundance, diversity and indicator species dominance can be used for the assessment of water pollution. Zooplankton community structure reflects the ecological status of the freshwater body as they indicate the health of an aquatic ecosystem (Dede and Deshmukh, 2015). A very few studies have been done on the water bodies of Gondia district of Maharashtra. The most notable contributors are Meshram, 2011; Gadekar, 2014; Bhandarkar, 2015. Work is very scanty; therefore, the present investigation has been carried out to assess zooplankton diversity of a small lentic ecosystem near village Lohara of Gondia district.

Material and Methods:

Study Area:

The present water body (Photoplate I) is situated in the village Lohara of the Gondia district. It lies between 21° 10' 42.08813"N and 80° 23' 7.83247"E. The water body is extensively used by villagers for the various activities such as washing of clothes, vehicles and cattle. It is also extensively used to dump Ganesh idols. The village has dominant population of adivasi tribe 'Gond'. Therefore, lots of Gond rituals take place around the lake. This resulted in cultural eutrophication of water body. Apart from this it also receives heavy agriculture run off from surrounding fields.

Zooplankton Sampling:

The sampling was carried out for period of one year from October 2020 to September 2021. The samples were collected in every first week of the month by using zooplankton bolting cloth of mesh size of 40 microns. About 200 litres of pond water is filtered through it. The collected water sample was immediately fixed with 4% formalin and later it is concentrated to 30 ml of volume. Zooplankton specimens were observed under Metzer-M-Co-axial trinocular digital camera research microscope vision plus-5000 DTM. Zooplankton species were identified by using keys from Endmondson, 1959, Battish, 1992, Michael and Sharma, 1998, etc.

Table I: Abundance of Zooplankton in a small pond at Lohara, Gondia, Maharashtra

Zooplankton	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
ROTIFERA												
Brachionus sp.	+	+	+	+	+	+	+	+	+	+	+	+
Lecane sp.	+	+	+	+	+	-	+	+	+	+	-	-
Lepadella sp.	-	+	+	+	+	+	-	+	+	+	-	-

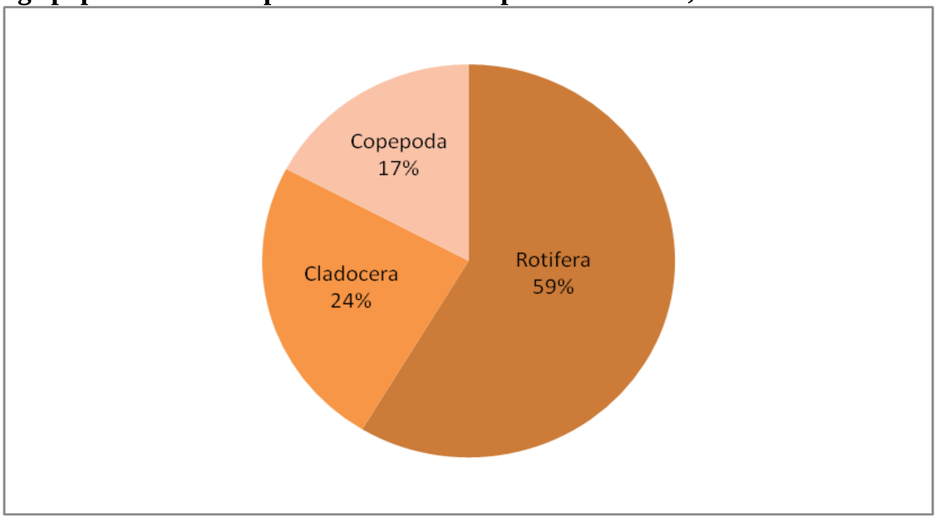
Keratella sp.	+	+	+	+	+	+	+	+	+	+	+	+
Anuraeopsis sp	+	-	+	-	+	+	-	+	+	+	-	-
Asplankhna sp.	+	+	+	+	+	+	+	+	+	+	+	+
Rotaria sp.	+	-	-	+	-	+	+	+	-	+	-	-
Testudinella sp.	+	+	+	+	+	-	+	+	+	+	+	+
Trichocerca sp.	+	+	+	+	+	+	+	+	+	+	-	+
Cephalodella sp.	+	-	+	-	+	-	+	+	-	-	+	-
Trichotria sp.	+	+	-	+	-	+	+	+	-	+	-	-
Polyarthra sp.	+	-	+	+	+	-	+	+	+	+	-	+
Filinia sp.	+	+	+	+	+	+	+	+	+	+	+	+
Plationus sp.	+	+	-	+	-	+	+	+	-	+	-	-
Monostyla sp.	+	+	+	+	+	+	+	+	+	+	-	-
Platyias sp.	+	-	-	+	-	-	+	+	-	+	+	-
Gastropus sp.	-	-	-	+	+	-	+	+	+	+	-	-
COPEPODA												
Mesocyclops sp.	+	+	+	+	+	+	+	+	+	+	+	+
Megacyclops sp.	+	+	+	+	+	+	+	+	+	+	+	+
Thermocyclops sp.	+	-	-	-	+	+	+	+	+	+	-	+
Neodiaptomus sp.	+	+	+	+	+	+	+	+	+	+	+	+
Heliodiaptomus sp.	+	-	+	+	+	+	+	+	+	+	+	+
CLADOCERA												
Moina sp.	+	+	+	+	+	+	+	+	+	+	+	+
Ceriodaphnia sp.	-	+	-	-	-	-	+	+	-	-	-	+
Bosmina sp.	+	+	+	+	+	-	+	+	-	+	-	+
Macrothrix sp.	+	+	+	+	+	+	+	+	+	+	+	+
Chydorus sp.	+	+	+	+	+	-	+	+	+	+	-	+
Alonella sp.	+	+	-	-	-	-	+	+	+	+	+	+
Diaphanosoma sp.	+	+	+	+	+	+	+	+	+	+	+	+

Results and Discussion:

A total of 29 genera of zooplankton were recorded belonging to three groups viz. Rotifera, Copepoda and Cladocera (Table I). The most diverse group was Rotifera, contributing 17 genera followed by Cladocera with 7 genera and then lowest contribution of Copepoda with 5 genera. This is a typical pattern found in tropical waters of this part of the country. Similar kind of observation is also found by Nimbalkar et.al., 2013 in Ambe Ghosale lake, Thane, where they observed 15 rotifers, 12 cladocerans and 6 copepods. Sultana kar et. al., reported 29 genera of zooplankton in Malini Beel, Cachar, Assam of which rotifers are 17, cladocerans are 8 and copepods are 4. Total 66 species of Zooplankton were observed by Pawar (2014) in some freshwater bodies of Satara district. The percentage composition of three groups of Zooplankton is depicted by pie chart (Fig. 2). It clearly shows that rotifers contribute 59% followed by cladocerans with 24% and copepods with 17%. Among rotifers, Genus *Brachionus* has shown highest species diversity. The most notable and abundant species were *B. falcatus, B. caudatus, B. calyciflorus, B. diversicornis* and *B. angularis*. Among rotifers, species belonging to genera *Brachionus, Keratela, Asplankhna* and *Trichocerca* are found to be present in water in all the months of study period. Similarly, species of Genus *Mesocyclops*, *Megacyclops* and *Neodiaptomus* of group Copepods and species of *Moina*, *Macrothrix* and *Diaphanosoma* of group Cladocera are found throughout the year. It is clearly apparent from the Taple I that maximum number of taxa of Zooplankton is found in May month whereas least number of taxa observed in August month of study period. This observation is may be attributing to reduced water level in May month resulting in high amount of nutrients in water causing maximum diversity, while in August month due to monsoon, increased quantity of water results in dilution of water along with the high turbulence of water causing lesser number of taxa in water. Similar findings were also observed by Meshram(2011), Bhandarkar(2017) and Gadwe & Tijare(2021) in other ponds of Gondia district.

Photoplate I- Beautiful Landscape of small pond at Lohara, Gondia

Fig. 1: Percentage population of Zooplankton in a small pond at Lohara, Gondia.



Conclusion:

The present study reveals that, an appreciable diversity of Zooplankton present in the small lentic ecosystem at Lohara, Gondia. In the present investigation, Rotifers are found to be dominant in terms of diversity and abundance over cladocera and copepods. Dominance of rotifers indicates that water is containing suspended particles. This is may be due to various human activities around the pond which may lead to slight eutrophic condition of water body. However, authorities must take necessary actions to prevent the eutrophication of pond and preserve the water body. People should be discouraged to use the water body for the rough use as well as releasing 'Nirmalya', holly offerings and God idols in water.

Acknowledgement:

Author is very much thankful of Principal Dr. A. K. Zingare of M. B. Patel College of Arts, Commerce and Science, Deori, Gondia, Maharashtra, India for granting permission to carry out present research in Zoology laboratory.

Competing Interests:

Author has declared that no competing interests exist.

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Communicative Approach – A way to develop English Language Skill of ESL Learners

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Abstract

Communicative Approach is one of the methods applied in English Language Teaching to develop the communication skill of the students. This approach makes the language class student cantered and students have more chances to interact freely in the classroom. The importance of teaching English is to make the students communicate well and develop the Ready to Go Anywhere skill. In the present scenario how to teach English is a challenging one as students are weak in communication. They turn a deaf ear when English is spoken and taught. So language teachers are in the position of teaching students to develop their communication skills. Communicative Approach paved the way in developing communication skills among students. The outcome of education is not in graduating the students but in making them communicate with confidence. This research focuses on the advantages, challenges and methods involved in a communicative Approach.

Aims and Objectives

The Aims and objectives of the research are as follows:

1. To test the effectiveness of the communicative approach to develop English language skills among students.
2. To compare the effectiveness of communicative approach and traditional method of teaching.
3. To test the effectiveness of communicative approach by comparing the achievement of the students' English language skills in terms of immediate post-test achievement and variables like size, status of higher secondary education, economic status of parents, educational status of parents.
4. To study the practical difficulties in implementing the models of teaching in the class rooms and to collect creative suggestions for the effective implementation of the scheme.

Hypothesis

Learners will develop communication skill in English.

Learners will come out from fear of crowd.

Learners will understand the purpose of communicative approach.

Learners will develop self confidence.

Learner centered atmosphere will be in the classrooms.

Research Methodology

This chapter deals with the methodology of research carried out by the researcher. It also explain the sample chosen (random) of the study, the profile of the sample, the details of the experiment, the tools used and other related details.

Study Sample and Learner Profile

The sample for this experimental research had a minimum of 100 students of an institution. The sample includes students differing in programmes, interests in language learning, Socio economic, linguistic backgrounds with different level of motivation and levels of proficiency in English.

Sample Justification

A vast majority of the students do not have communication skills in English.

These learners do not read newspapers or journals and not read in text books in the classrooms. They are not able to speak in English with their teachers or friends. They are very slow in writing and practice to write which are written on the black board. They are lacking in listening skills. But their aim for studying is to get a job and to develop communication skills in English.

Sample Details

The main participants of this study are students of B.A and B.Sc who learn English as the second language in their graduate level. The participants of this study are selected from the institution which is affiliated to Madurai Kamaraj University in Tamil Nadu State offers English as second language for the students in the first year and the second year Undergraduate level. The sample contains the experimental group and the Control Group.

Design of the Study

Stage-I A survey has been conducted using a questionnaire and a pre-test has been given to analyze their language skills. The pre-test has been assessed and the scores will be tabulated and recorded for analysis.

Stage-II: A unique curriculum has been designed using the principles of task based learning and teaching. The curriculum included materials of different types with different activities and tasks. Further it will be conducted in the Control Group for establishing the hypothesis that language skills could be achieved if Communicative Approach is applied.

Stage-III: A post test has been conducted and assessed. The scores have been analyzed for validation. The data thus collected has been used for analysis and for interpretation and deriving conclusions.

Expected Outcome(s)

The following are the expected outcome of the research:

A change in the method of teaching will enable the students not only acquire language skills but also develop interest in the English language classroom.

If the approach is task based, then the student will develop language skills and thus acquire the required levels of language skills.

The experimental study will also include testing the effectiveness of the Task Based approach to develop communication skills for improving language of the students. It is thus proposed to have an experimental group of the students as samples for this research.

There will be a slight improvement between the Control Group and the Experimental Group.

The Experimental Group will enjoy and feel that developing Communication Skill is not much difficult.

Results and Discussions

Communicative Approach is different from other methods of teaching. In the post test if the students showed any improvement the communicative approach will be very effective to develop the communication skills of the students. If the students prefer a communicative approach that can be preferred in HEI in all semesters or else traditional methods can be followed.

Conclusion

What has been said or outlined in this research on approach will give 'Received information' and 'Received knowledge', mostly received from other scholars, theorists, teachers, etc. Such received knowledge can only give the basic framework or at least an awareness of the phenomenon. A real understanding comes only out of the teacher's own "live experience". It transforms knowledge into wisdom. Unless a teacher experiences the teaching - learning process as a joint venture in the classroom, he/she cannot find a method that is suitable for the situation. Normally a classroom situation is a human situation, consisting of human beings and human elements. Yesterday's class was different from today's class and tomorrow's class will be different from the next days. So there is no standard class or a standard prescription for teaching and learning or for methodology. Communicative Approach is a way to keep students away from the traditional way of learning in the ESL class rooms and will help the students to develop communication skills in HEI.

Recommendations

The study can be taken up on a large sample with the objective of promoting the use of communicative approach to develop English language skills of the rural students. The study can be extended with the objectives remaining the same with English for slow learners, problems faced by the slow learners in English language class rooms, problems faced by the learners in co-education institution while speaking in English in the language classes, problems in developing vocabulary skill, pronunciation and the challenges faced by the students while pronouncing words etc…

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An Understanding of the Influence of Digitalisation on Photojournalism

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DOI- 10.5281/zenodo.7056903

Abstract

The field of photojournalism can be best understood as a fundamental foundation of the field of journalism. This remarkable communication medium uses photographs to inform, educate and persuade common people about various events that need to be reached out. The evolution of photojournalism and its journey towards digitalisation has effectively contributed to journalism's overall development. The emergence of digitalisation has brought about revolutionary changes in various fields. The concept of digitalisation can be understood as the procedure in which any information can be translated into a digital format. The primary motive of digitalisation is to ensure convenience as well as enhanced consumer experience in any given field. Over the past two decades, digitalisation has altered the structure of photojournalism. Photography and Photojournalism have constantly witnessed change due to the influence of the internet and other key developments. It becomes crucial to understand that digitalisation has played an active role in photojournalism since the beginning of photojournalism. Novel technology and innovations have made the process of photography simple. Some Scholars argue that the advent of digitalisation in photojournalism has enhanced and elevated the field of photojournalism while some argue that digitalisation has become a threat to photojournalists in the 21st century. Through this paper, the researcher aims to understand and comprehend the role of digitalisation in the field of photojournalism and the advantages and disadvantages of digitalisation in the field of photojournalism. The researcher also intends to focus on the difficulties and professional problems faced by photojournalists of the digital era.

Keywords: Digitalisation, Photojournalism, Photojournalists, Digital Era, Advantages and Disadvantages…..

Introduction

Print media is struggling to compete and thrive in a tough economic climate with a focus on fast internet consumption. The physical attractiveness of their product, which is generally driven by photographic pictures and design, is a basic approach that newspapers and publications have frequently utilised to promote their publications. However, in a world where information is presented, processed, and digested in new ways, photography has come to play a different function in how it is collected, set out, and used in today's print media. Culture influences digital transformation; the change does not influence culture. Digitalization has transformed not just the sorts of cameras that are used, but also the types of images that are produced and the kinds of photographers that take them. Digital photography, which appeared all through the 1990s, involved not only the death of film, the demise of the old darkroom, and the evaporation of chemical odors from the newsroom corridors, but also a shift in how news portraits are brought, contained, chosen, distributed, modified, went looking and collected (Bossen et al., 2006; Cookman, 2009; Douglis, 2002; Fahmy and Smith, 2003; Levac, 2007; Ritchin, 2010; Wells, 2009). The page design has developed to be more readily and rapidly digested to reach a public that is flooded with current news and to assist them in selecting the information they desire. As a result of these technological advances and the movement in societal expectations of immediate media, a new sort of journalist is being produced. Nevertheless, photographs and architecture remain two of the overarching elements that sustain print today, because the worth of these areas is what initially attracts and engages readers.

Today, the technological elements of image sensors eliminate the biological method and allow for entirely automated photography. Colour has become the standard, owing to improved print press quality. Photojournalism was traditionally a graduate organization with education and abilities since it was a momentous procedure with expensive equipment. That skill set was rendered obsolete by digital cameras. Because everybody with a camera may now be a photographer, conventional photographers have had to become specialists. This also generates an unusual contrast because the general population is aware that they are equipped to take photographs and, as a result, do not place the same or more value in slap tackles and are hesitant to purchase them. Therefore the business is attempting to find a careful balance between cost-cutting and cost-effectiveness.

Photojournalism in the digital era

Professional photojournalists' working techniques are changing rapidly in the digital age. New technology, platforms, and techniques of storyboarding are putting a variety of pressures and impacts on photojournalists, requiring them to respond and adapt in various ways. Digital photography is one of the finest technologies of our time. Since the 1950s, the realm of digital imaging has gone a long way. It has evolved into a method for individuals to communicate and articulate themselves. Digital photography allows us to achieve this instantly and with virtually endless options. Earlier research suggested that digitization may not be all bad news for photojournalism, as it may help to alleviate the time constraints of chemical photojournalism (Fahmy and Smith, 2003), take professional photographers out of the chemical darkroom, and enhance their sense of presence and cooperation with other journalistic staffers (Bossen et al., 2006; Fahmy and Smith, 2003). This quick technology enables us to exchange images with everyone on the planet, improving our lives. In today's contemporary world, several different sorts of equipment are employed to record or capture photographs. This contains the categories of cameras that have gone through different phases of evolution over the years in the pursuit of human perfection. This assignment will contain the fundamentals of how the individual cameras work, the specifications and types of photographs that can be acquired, as well as a variety of perspectives on how the appearance of the photograph that is being shot is captured. As a result, kinds of other external hardware that may be helped to improve image quality, and the different types of scenarios that are experienced under specific types of conditions are also included. Furthermore, based on the scenario, specification, money, and various other aspects that contribute to acquiring a camera, concentrating on the parameters in deciding or purchasing the camera.

Point and shoot

A click as well as shoot camera, sometimes known as a small camera, is still primarily geared to do simple operations. Most cameras feature focus-free optics or automation for focusing, and most come equipped with a built-in flash. Point-and-shoot cameras are by far the most popular form of independent camera, indicating a considerable distinction between a camera and a phone. They are extensively used by non-professional photographers as a tool to simply capture photographs or shoot for record purposes and are regularly utilized for vacations, parties, reunions, and other auspicious events. Furthermore, it provides consumers with no further technical settings or options, only the fundamental function. Most of the features on a point-and-shoot camera are automated and may be accessed with the push of a button. Highly suggested for holiday scenarios, such as capturing a moment in time or having rapid access to a photograph for recording purposes.

Prosumer Camera

The word "Prosumer" refers to a hybrid of a professional and a typical consumer. When a camera is referred to be a prosumer type, it typically is a point-and-shoot with advanced capabilities such as customizable exposure adjustment and RAW picture recording. These cameras are very often aimed at enthusiasts. Generally resembling compact cameras, consumer and enterprise camera equipment is packed with all the capabilities that such a serious and skilled photographer would appreciate. Prosumer cameras often feature better lenses, greater resolution, and far more exposure control than a juncture camera. It is frequently used in professional photography, such as weddings, birthday parties, and other momentous occasions, to provide an added dimension in terms of image quality and composition and in comparison to a tiny camera, functionality

Digital SLR

Professional photography is frequently connected with the Single Lens Reflex (SLR) design. These cameras have the same appearance and feel as their non-digital counterparts, and they even use the same lenses. A digital SLR camera is an option for purchasers looking for a prosumer camera. These cameras resemble the original SLR considerably more. They are large in comparison to prosumer versions, especially when the lens size is considered. Most digital SLR cameras feature conventional lens mounts, allowing typical lenses to be utilized. SLR stands for "single lens reflex," and all these devices allow you to see precisely what the camera captured when you look through the viewfinder. Most small cameras feature a barely functional viewfinder that isn't even close to being precise for composition. This is changing with the introduction of more recent prosumer digital cameras with electronic viewfinders. Digital SLR cameras have significantly higher quality and detail than ordinary or prosumer cameras. With modern cameras, the digital photography element (the CCD) is substantially bigger, resulting in almost noise-free images with exceptional clarity and quality. Comparison of Point and Shoot, Prosumer, and DSLR Cameras

Digital SLR's

If you enjoy photography but do not mind the weight and dimensions of a professional SLR, the reduced prices and higher pixel density of these devices make them an excellent choice. SLRs, on the other hand, are too big for consumers searching for an all-around camera. Most digital SLR cameras, whether it or not, are Much SIMPLER as their smaller and more affordable counterparts, with less imaginative features and settings.

Prosumer Cameras

Consumer and enterprise digital cameras are popular among both professional and amateur photographers. Despite being more premium than the ordinary compact digital camera (and even some entry-level SLRs), these cameras often feature three distinct advantages. Lens/resolution - In general, prosumer cameras have superior lenses and picture resolution than small cameras. "Better lenses" are characterized as optical characteristics, lens performance (max aperture), and wide-angle/zoom combinations. Manual Control/Features - The most significant feature of a prosumer camera is that it gives you complete control over deposition potential such as shutter/aperture, photography settings, white balance, and picture velocity. Ergonomics/Design - Patrons are often stronger, more substantial, and more ergonomic than compacts. For their prosumer cameras, several manufacturers have introduced better grade materials, such as thicker magnesium alloy frames.

Compact Cameras

This category is significantly too broad, generally referring to "any consumer cameras that isn't a modern SLR." Some models straddle the compact/prosumer divide. A compact digital camera is just a tiny, easy-to-use camera. Compact cameras are compact and simple to use, and hundreds of types are available in every size, size, and colour. If the aim is to capture an excellent clean image, you will be comfortable with practically any camera. Always seek for lenses that are quick and/or broad. A decent lens will clearly boost your pictures more than flashy video functions and other gizmos. Some tiny cameras have full control over the speed, aperture, and film speed. If you would like to understand more about exposure, any shooter with these qualities is a good substitute for the slightly bigger and more costly prosumer camera. Additional photographic equipment that may be utilized to improve various forms of photography

Camera Lenses

Standard Lenses

A normal lens has a focal length in the middle of the range, often approximately 50mm. They create images that look "real" to the viewer because their angle of view is nearly identical to the degree that the visual system can easily perceive. Standard camera lenses typically feature a fixed telephoto lens and a wide aperture, providing them good low-light performance. They are ideal for a variety of photographic topics, including as landscapes, landscapes, and candid images.

Macro Lenses

A macro lens is one that is specifically developed for close-up photography. They feature a different internal architecture than standard lenses, which results in very high sharpness and contrast, resulting in some truly eye-catching photographs. Macro lenses are great for shooting subjects up close. Insects, wildlife, and plants are common topics, they are also famous for shooting very detailed shots of mundane items.

Telephoto Lenses

A zoom lens has a longer focal length and a top level of magnification, permitting you to picture things from a moderate to a great distance away. They are often larger and heavier than in other types of lenses, however, developments in technology have made them smaller and simpler to handle. Telephoto lenses are useful for shooting where you cannot get close to the subject, such as animals and sporting events. They are especially popular in portraits, where a modest telephoto lens can give you a genuine, undistorted viewpoint.

Wide Angle Lenses

A wide-angle lens has a narrow focal length. They have a wider field of view than ordinary lenses, permitting them to record the entire environment in a single photo. Fisheye lenses are extremely wide-angle lenses that can capture roughly 180 degrees, resulting in some unusual, almost abstract photographs. Wide-angle lenses are ideal for capturing landscapes, confined interiors, and other things that will not fit within the field of view of a standard lens. Fisheye lenses go a step beyond and are renowned for capturing action sports such as skating and surfboarding, where the natural distortion adds a dynamic aspect to the photographs.

Specialist Lenses

Furthermore, there are a variety of specialized camera lenses available to meet less usual photography requirements. Tilt and switch lenses for perception adjustment, delicate optics for portraits, and infrared lenses enabling catching light outside the visible spectrum are examples of these. A specialty lens is employed to create a unique or artistic effect, and so has limited application in regular photography. They can, however, be incredibly beneficial should you need to capture a certain topic in a specific way.

Camera body

Choosing a camera body is critical based on the kind and preferences that are necessary based on one is wants, specifications, and scenario. Deliver the finest quality of photographs in a highly professional manner, is without a doubt the most crucial and vital aspect in improving the photograph that is being shot.

Tripod

The second most critical piece of camera gear for wildlife photography is a tripod. Choosing a tripod that is adaptable and very durable and can firmly carry the burden of the equipment and lens (at least 5 - 10 pounds or more) is highly recommended. Elevation adjustable from the ground surface to about 60" or higher recommended, with the flexibility to photograph near ground level effortlessly, plays a significant role in improving the photographs that must be shot.

Types of Photography Shots

Photojournalism

One of the reasons that photography is often conducted by professionals is that professional photojournalists must ensure that their images preserve the structure of the original situation. Photojournalism asks the photojournalist to simply shoot the facts: no picture editing or embellishment is allowed. Photojournalism photographs are frequently strong images that draw the spectator into the news tale. Knowing how to snap such photos to convey the original mood generally requires years of effort and expertise.

Documentary Photography

Documentary photography uses images to communicate stories. The primary distinction between photojournalist and documentary photography is that documentary photography is intended to serve as a historical record of a certain political or social epoch, whereas photojournalism captures a specific event or occurrence. A documentary photographer may capture a sequence of photographs of inner-city destitute people or cover foreign conflict situations. Documentary photography may be about anything. Documentary photography, like photojournalism, strives to present the truth without distorting the image.

Action Photography

While action photographers may specialize in several areas, athletics shooting is one of the quickest and most thrilling genres of photography. A skilled sports photographer, like any other action photographer, must understand his or her topic well enough to predict when to capture shots. The same regulation applies to photographers who capture action photos of animals in the wild or planes taking flight.

Macrophotography

Macrophotography is a branch of photography in which photographs are shot at close range. Macrophotography, which was once confined to photographers with specialized and expensive equipment, is now easy for amateurs to practice with digital cameras that have macro settings. Insects, flowers, the fabric of a woven sweater, or any item where close-up photography shows remarkable features are examples of macro photography subjects.

Glamour Photography

Glamour photography, which is sometimes mistaken with pornography, is sexy and sensuous, but it is not obscene. Rather than emphasizing on nudity or obscene stances, glamour photography attempts to capture its subjects in seductive poses that highlight curves and shadows. The purpose of glamour photography, as the name implies, is to portray the subject in a dazzling light. As a result, many glamour photographs have flirty, secretive, and playful undertones.

Role of photojournalists in digital era

Events do not wait for anybody, including photojournalists. A journalist must be ready to respond quickly and keep his camera close at reach at all times. The fascinating photographs are frequently the consequence of the photojournalist's vigilance in being in the right location at the right moment. If a journalist is careless about his profession, he will most certainly miss numerous vital opportunities. It is not really just about being there at an essential spot, but also about being in the optimum position with the video ready. A photojournalist may have advance knowledge of some occurrences. Obviously, professional photojournalists can be distinguished from amateur photographers by several characteristics such as skills, ethics, motivations, and the restraint of emotional involvement (Yaschur, 2012b). As a result, he may arrive long even before action begins. Whenever a photojournalist is working on a photo feature, he or she must take a different strategy and be more prepared. If the images are of people, the photographer must be patient and win the confidence of the subjects. Most individuals are self-conscious when a camera is pointed at them or are timid when confronted with one, and they do not behave normally. The photographer should operate in such a way that the persons being photographed are unaware of his presence. This is most readily accomplished if somehow the photojournalist spends more time with the subjects being shot, converses with them regarding what they are doing, and explains the objective of the image. As a result, when the images are taken, they are no longer intrigued or concerned about the photographer's interest in them, and they can disregard the camera and act naturally when it is aimed at them.

Advantages of digit photography

There are several advantages of digital photography and they are appropriate to everyone from amateur photographers to professional photographers.

Removes the need for film and film processing – This is most likely the most important of its benefits. You are not required to waste time and effort developing a roll of film. in a darkened room. And use a digital camera allows you to snap images without having to pay for film or worry about the sort of film to purchase; in addition, you are never going to buy film anymore.

Ample Photo Memory – Depending on the capacity of the memory card and the quality of the photographs you take, digital cameras may easily hold up to 10,000 shots. This much exceeds the capacity of ordinary roll film cameras.

Functioning Speed- With older cameras, you had to "wind" the film after taking a picture. This resulted in some time lag and irritation for the user. This is not necessary with digital cameras. All you must do is aim and shoot.

Face Recognition- High-end cameras have been meticulously developed to recognize faces via the lens. Reducing the number of times, you get fuzzy faces and red-eye photos!

Motion Exposure- Nowadays days, elevated digital cameras include in-built motion detection functions that adapt moving photos, eliminating blurriness. This is very useful for photographing moving subjects, such as a car race or a football match in process.

Nocturnal Methods- Taking images in low-light conditions has gotten considerably easier owing to unique night mode functions included in today's digital cameras.

Meek Image Removal- Digital photos may be easily modified. Image editing software is commonly accessible and allows you to adjust the shot to your liking.

Finder and Performance Displays- Digital cameras include seeing screens just on main camera that allow you to examine the image immediately after clicking it. If you don't like it, you may simply delete it, freeing up storage space for better photographs.

Video Competence- Most digital cameras today come with built-in hd video capabilities. It, if you stumble across as something that you would rather record than photograph, you can do so with the same camera.

Go Green- It is ecologically friendly. There will be no manufacturing pollutants to wash down drains. The enormous amounts of water and power required to develop pictures are no longer required. You also won't have to bother about recycling those small plastic film containers.

Smarter Choice- Digital cameras are incredibly cost-effective, versatile, and provide maximum VFM (value for money). Furthermore, as technology progresses, they are always being modified with new features.

Disadvantages of Digital Photography

Digital photography has certain drawbacks. It is not yet flawless, and we are all still contributing for the manufacturers' R&D expenditures. Here are a few disadvantages:

Memory Card Subjects- All images, video clips, and so on are kept on a micro sd card. In rare situations, the memory card might become corrupt or develop other difficulties, resulting in irreversible data loss.

Higher Initial Charge- Elevated, complete electronic cameras are more expensive than roll film cameras.

Battery Consumption- Digital cameras' batteries degrade faster. This necessitates keeping a few additional batteries on available, especially during lengthy shooting sessions.

Image Tenacity- The image resolution of 35mm film is about similar to that of a 25-megapixel full-frame sensor. While digital photo sensors are still improving and digital cameras improve on a daily basis, film images continue to dominate in terms of resolution and clarity.

Active range- Film has a better dynamic spectrum than digital cameras. As a result, film can record a broader variety of tonal quality. This is a significant component in general picture quality since it makes it more difficult to exposure bracketing an image when using film. Film can often generate several colours of white, which aids in preventing highlight overexposure. This implies that film has an advantage when it to catching light hues, particularly at dawn and sunset.

Shutter interval- Shutter lag is a time delay between when you push the close button and when the image is taken in digital cameras, particularly low-cost ones.

Manifold Experiences- Doing maybe double repeated exposes on a digital image is difficult, if not impossible. Furthermore, camcorders are more vulnerable to noise during extremely long exposures.

Conclusion

Throughout its lengthy history, photography has had a wide range of effects on society. Its utilization in both professional and personal settings enables people to capture and share moments of splendor and wonder with the rest of the world. Individuals can also use photography to document and relive significant occasions in their life. Although this appearance of photographs has altered several times throughout the years, its influence has not. The introduction of digital technology is one technical improvement that has dramatically transformed the face of photography. . By the end of the twentieth century, the growth of the Internet and digital technologies had raised various questions in the area of photography and had an impact on the whole operation of photojournalism producing goods. The photography business has been transformed by digital technology. As time passes, it becomes simpler to capture technically excellent images in terms of exposure and focus. Capturing visually pleasing photos is still as challenging as it was in days of movie and chemicals. Technology is necessary, but it is insufficient to make art. As a result, Photographing has evolved greatly since the analogue era: it is now speedier, more economic, and simpler. Added duties have also been assigned to news photographers, and these activities frequently require almost the same amount of time as the analogue procedure did. Photojournalists are now in charge of photographing, choosing, editing, describing, key phrasing, archiving, and, in some cases, disseminating their work.

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Atmanirbhar Bharat Package for Agriculture Development

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DOI- 10.5281/zenodo.7059726

Abstract

The real India lives in its villages and smaller towns and there lies the future of India. Rural India has been ignored for more than 67 years and the Atmanirbhar Bharat Abhiyan (Package) will bring the change that is required to bridge the between divide rural India and Urban India, and will improve the Indian rural economy. The principal source of income in India is agriculture. So, the Atmanirbhar Bharat Package basically focused on the Indian agriculture sector. Latest technological development has through a dramatic change in every field and agriculture is no exception on it. A Self-Reliant India Movement impacted positively on agriculture field and related services they provide for user's objective of this review is thus concerned with the Atmanirbhar Bharat Abhiyan Package, and ways to introduce for promoting.

Introduction

Indian agriculture examines the essential role of the process. and economic development of least developed countries most like India. Basically, by providing food grains to the nation, agriculture release labour, provide savings, and, contributes to the market of industrial goods and also gain from foreign exchange. Agricultural development is a significant part of the complete development of the economic level in India, agriculture was an important source of national income. Today more than 41.49% of the workforce is connected to agriculture. it is also a significant feature of agriculture that is to be pointed out the growth of other sectors and the overall economy depends on the performance of agriculture to a considerable extent. Because of these reasons agriculture continues to be the dominant sector in the Indian Economy. All these developments in Indian agriculture are contributed by a series of steps initiated by the Indian Government Land reforms, the inauguration of the Agricultural price Commission, and employment. Atmanirbhar Bharat Abhiyan is India's Rs 20 lakh crore package for economic revival announced in the context of the COVID-19 pandemic, has its third tranche exclusively dedicated to agriculture and allied activities. A set of measures are proposed in the package, with the overarching The proposed measures include working capital facilities for farmers; As supply chain disruptions during the COVID-19 pandemic reveal critical gaps in agricultural infrastructure and logistics systems, the third tranche of the measures announced under the Atmanirbhar Bharat Abhiyan focuses on agriculture and allied activities. Here are the proposed Agri-marketing reforms as part of the stimulus package: worth ₹ 1 lakh crore are to be given to agricultural cooperative societies, farmer producer organizations, and start-ups for boosting farm-gate infrastructure. ₹10,000 crores have been allotted for the formalization of micro-food enterprises and a cluster-based farming approach is to be followed. Under PM Matsya Sampadana Yojana ₹ 20,000 crores have been allocated for fishermen. This is expected to pave way for additional fish production of 70 lakh tonnes over 5 years. ₹13,000 crores have been appropriated to achieve 100% vaccination of cattle, buffalos, sheep, goats, and pigs. While a boost of ₹ 15,000 crores has been granted for animal husbandry infrastructure. ₹4,000 crores have been allotted for the promotion of herbal cultivation. The move aims to cover 10 lakh hectares under herbal cultivation in 2 years. Beekeeping initiatives have been assigned ₹ 500 crores. The Essential Commodities Act, 1955, is to be amended to de-regulate cereals, edible oils, oilseeds, pulses, onion, and potatoes. Marketing reforms will be undertaken to provide adequate choice for farmers to sell produce at prices of their choice.

Atmanirbhar Bharat's Economic Impact

These are important actions that could, in the medium and long terms, benefit the economy. Additionally, it is crucial to understand that the policies must work to revive the demand in the quite brief. the opening of the economy and the adoption of a variety of policies under the "Atmanirbhar Bharat" package has accelerated the pace of economic recovery. India's economy is demonstrating a V-shaped recovery with consistent gains in key indicators. The Indian economy's strongest sector continues to be the agricultural one, with solid year-over-year growth of Tractor sales increased by 2.9 percent during the Rabi planting season. Additionally, minimum support prices have increased. Along with the acquisition of records, expedited paid employment creation through MGNREGS, a positive sign for Additionally, the rise in industrial production occurred concurrently with October's holiday season. fuelled by the industrial and electrical sectors, to an eight-month high. A continued rise in PMI manufacturing has further supported the ongoing surge in commercial and industrial activities. power demand, consistent growth in E-way bill generation, and increasing highway toll collection exceeding levels before Covid. In December 2020, monthly GST receipts reached their peak levels. As passenger profits start to improve, the growth pace in rail freight traffic is optimistic. Domestic aviation is picking up, while port cargo traffic is increasing. India's merchandise trade deficit increased as domestic activity increased and imports increased. after nine months, there has been growth. India recorded its third consecutive current account surplus. Q2:FY21 quarter - $15.5 during the first quarter of FY21. Total FDI inflows reached a new high of US$ 46.82 billion in the first seven months of the current fiscal year, up 11.3% from the same period last year. FY2019-20. As of August 15th, India's foreign exchange reserves reached a new high of US$ 586 billion. December 2020 4

Review of literature

DHARTI GAJJAR, 2013. A Review on “Atmanirbhar Bharat Package (A Self - Reliant India Movement) in Agricultural Development of Rural India” this study Investigates the villages and smaller towns and therein lies the future of India. Rural India has been ignored for more than 75 years and the Atmanirbhar Bharat Abhiyan (Package) will bring the change that is required to bridge the divide between rural India and Urban India and will improve the Indian rural economy. The study will use the main use of Output Growth, Input Use Pattern tools the objectives of this study the Atmanirbhar Bharat Abhiyan Package, and ways to introduce for promote, main findings on the Latest technological development has through a dramatic change in every field and agriculture is no exception on it. A Self-Reliant India Movement impacted positively on the agriculture field and related services they provide for users in the Agri field

Smita Dubey and Harish Dubey (2020) in their study “ATMANIRBHAR BHARAT ABHIYAN: AN ANALYTICAL REVIEW” this study will be flowing the Atmanirbhar Bharat Abhiyan is the new version of ‘Make in India’ which was announced by Hon’ble Prime Minister on 12th May 2020 with a new vision. The detailed announcements were made in five days relief package by Finance Minister Nirmala Sitharaman to mitigate the negative effects of the COVID-19 pandemic. She clarified that it doesn’t aim to adopt protectionism against other countries. The main objectives of this study are 1. To find out the capacity of some sectors to achieve self-reliance 2. To find out the problems on the way to Atmanirbhar Bharat. 3. To suggest remedies for existing loopholes. The present study is based on secondary data collected from different journals, magazines, various books, and websites which are clearly mentioned in the bibliography. the study finds out the result on the Abhiyan could be fulfilled by adopting some measures. As the government allotted a huge amount for the development of many sectors and schemes there is a need for the proper allocation of the funds generated and it should reach the actual hands.

Muthu Abishag, C.Judith Betsy, J. Stephen Sampath Kumar (2010) in their work on “Resources and Productivity of Indian Aquaculture” India tops the world in aquaculture production next to China. The present blue revolution envisages tripling fish production in India by 2020, which necessitates effective resource utilization. The aquaculture resources of a country cannot only be limited to land and water availability but also to its species diversity, workforce, and infrastructure facilities. Though Indian agriculture has registered increased production in the past few years, the productivity in terms of water and manpower resources remains very low. There is also, a need for diversification of species for mariculture activities. Hence, this paper examines the status of Indian aquaculture from a global perspective to sort out ways for enhancing productivity.

Nusrat Akber and Kirtti Ranjan Paltasingh (2019) “Investment, subsidy, and productivity in Indian agriculture: An empirical analysis”, this study compares the effectiveness of public investment with that of subsidies on the total factor productivity (TFP) OF Indian agriculture at the national and sub-national levels. Using time-series data and the findings show that public investment is more effective than subsidies in raising agricultural productivity in both the short and long run. At the national level, the elasticity of public investment ranges from 0.03 to 0.10 in the long run and from 0.03 to 0.05 in the short run. At the state level, too, we find a positive and significant effect of public investment in the short and long run. But the impact of subsidies is mixed: subsidies negatively impact the TFP of most states (barring a very few developed states). The implication is that for the efficient and sustainable growth of Indian agriculture, the government needs to gradually convert subsidies into investment.

Taranjeet Singh, (2017) "Issues and Challenges of Indian Agriculture" in this study investigate the village economy, which is the economy of cultivators, village handicraftsmen, and agricultural laborers. Since its independence, India has developed from the stage of net importing to net exporting of food grains, and still heavily depends upon agriculture. The green revolution in the mid1960‟s has the credit to change the situation of Indian agriculture. But today agriculture in India is facing a crisis. This is due to the problems that the Indian agriculture sector could not tackle over time. This paper explains these problems and identifies the priority areas which should be taken under dire care to get rid of the agricultural crisis.

Thangamani, (2016) "Indian agriculture: performance and challenges – a case study" the post-economic reform policies have diversified the Indian economy from an agro-based economy to a partially industrialized and service-based economy. This decrease in agriculture's contribution to GDP has not been accompanied by a matching reduction in the share of agriculture in employment. About 52% of the total workforce is still employed by the farm sector which makes more than half of the Indian population dependent on agriculture for subsistence agricultural indebtedness pushed several farming households into poverty and some of them resorted to extreme measures like suicides objectives analyzed the importance of agriculture in the Indian economy in the planning period. find out the factors responsible for the poor performance of agriculture. The study is based on both primary as well as secondary data. The secondary data were collected from published and unpublished documents of Government Departments, Census reports, Statistical Abstract of Tamil Nadu, District Statistical Handbook, etc,

Objectives

1. To know the Status of agriculture fund Allocation in the Atmanirbhar Bharat package
2. To examine the issues in achieving self-reliant in Indian agriculture

Methodology

This research article is completely based on secondary data. and Descriptive data, on a tool It includes a compilation of research, was collected from published and unpublished documents of Government Departments, Census reports, Statistical Abstract articles, books, journals, government budget survey reports, newspapers, etc., and necessary information and suggestion from an expert, experienced personalities engaged with financial matters and a related number of measures supporting farmers. Regarding budget, information, and agriculture development, collected from the analysis of different experts in respect for the atmanirbhar Bharat package and its impact on the agricultural economy.

Discussion

Table no 1 Financial status and growth rate for agriculture development in the Atmanirbhar Bharat package

S. no	Part	Focus Area	Amount (Rs crore)	Growth rate
1	Part 1: May 13, 2020	Businesses including MSMEs	5,94,550	0.28
2	Part 2: May 14, 2020	Poor, including migrants and farmers	3,10,000	0.14
3	**Part 3: May 15, 2020**	**Agriculture**	**1,50,000**	**0.07**
4	Part 4& 5: May 16, 2020 May 17, 2020	New Horizons of Growth Government Reforms and Enablers	48,100	0.02
5		Subtotal	11,02,650	0.51
6	Earlier Measures Including PMGKP		1,92,800	0.91
7	RBI Measures		8,01,603	0.38
8		Sub Total	9,94,403	0.47
9		**Grand total**	**20,97,053**	**2.27**

Source: PIB, PRS Legislative Research

This table examines the financial status and growth rate for agriculture development central government announced Rs. 20.9 trillion Atmanirbhar Bharat Package in May 2020 in five tranches to provide some cushion from the devastating impact of the Covid pandemic. while the package was equivalent to about the Area of Businesses including MSMEs of Focus area growth rate 0.28, the total fiscal outgo has been Expenditure at about 5,94,550 cores, and most of area Poor, including migrants and farmers, was spent 3,10,000 crores 0.14 Growth rate A large part of the stimulus measures area was Agriculture sector its expenditure on 1,50,000 crores 0.07 rate growth determined, 48,100 crores were spent to New Horizons of Growth Government Reforms and Enablers and 0.02 growth rate respectively and the subtotal amount was 11,02,650 out of 20,97,053 crores in current financial events and 0.51 its growth rate. Some beneficiary schemes of like Earlier Measures Including PMGKP 1,92,800 crores, 0.91.and moreover RBI measures 8,01,603crores of 0.38 growth rate. the scheme subtotals of the amount in crores 9,94,403, 0.47 of growth rate out of grand total 20,97, 053 lakh crores and 2.27 growth rate in respectively

Table no 2 Agri Infrastructure Fund for farm-gate infrastructure to the farmers

Key Announcements	Type of Measure	Amount in crores	% Of GDP
Agri Infrastructure Fund for Farmgate infrastructure	Quasi Fiscal	1,00,000	0.49%
Technical up-gradation scheme for Micro Food Enterprises	Fiscal	10,000	0.05%
Allocation under Pradhan Mantri Matsya Sampada Yojana	Fiscal	20,000	0.10%
Animal Husbandry Infrastructure Development Fund	Fiscal	15,000	0.07%
The outlay for herbal cultivation	Fiscal	4,000	0.02%
Beekeeping initiative	Fiscal	500	0.00%
Extension of Operation Greens beyond TOP products	Fiscal	500	0.00%
Total		**1, 50,000**	**0.74%**

Source: FICCI Economic Affairs and Research Division

This current table will indicate that in one of the highest amounts 1,00,000crores package allocations of Agri infrastructure found for farm-gate infrastructure and most of the high 0.49 % GDP will be generated for the boosting Agri Infrastructure Fund for Farmgate infrastructure amount, and fiscal type of allocating for 10,000 crores amount to Technical up-gradation with the help of this scheme will be determined by 0.05% of GDP progress and Allocation under Pradhan Mantri Matsya Sampada Yojana will 20,000 crores amount 0.10%GDP generated as well as Animal Husbandry Infrastructure Development Fund 15,000 0.07% , Total 1, 50,000 out of the scheme The outlay for herbal cultivation was 4,000 and the GDP % was 0.02%, and Beekeeping initiative 500 cores ranges 0.00%was the result of GDP %, and lastly, Extension of Operation Greens beyond TOP products 500 crores and GDP 0.00% was respectively

Table 3 Allocation of funds: Tranche of the financial package for a different scheme

Sl.no	Items	Fund allocation (Rs. Cr.)	Remarks	Actual fiscal stimulus (Rs. Cr.)
1	Food micro enterprises	10000	Government's investment in skill up-gradation for micro food enterprises	0
2	Pradhan Mantri Matsya Sampada Yojana	20000	Government investment in technology, infrastructure, and skill development in the fisheries industry	0
3	TOP (tomatoes, onions, and potatoes) to TOTAL (all fruits and vegetables): Operation Greens	500	Government investment to improve the supply chain infrastructure in fruit and vegetables	0
4	Agri-Infrastructure Fund	100000	This is a government investment and it was fully included in the Rs. 2.83 lakh crore agriculture budget in the Union Budget in February 2020	0
5	Animal Husbandry	15000	Same as above	0

	Infrastructure Development Fund			
6	Promotion of herbal cultivation	4000	It was already included in the AYUSH department's budget under the Union Budget in February 2020	0
7	Beekeeping initiative	500	It was already included in the Union Budget in February 2020	0
Sub-Total		**150000**		**0**

Source: FICCI Economic Affairs and Research Division

This table investigate the Financing facility under the Agriculture Infrastructure Fund of Rs. 1 Lakh Crore was launched on August 9, 2020. It will support farmers, PACS, FPOs, Agri-entrepreneurs, etc. in building community farming assets and post-harvest agriculture infrastructure Fund allocation 10000 crores for the boosting Food micro-enterprises Actual fiscal stimulus was 0, the major Remarks, Government's investment in skill up-gradation for micro food enterprises, 20000 crores Pradhan Mantri Matsya Sampada Yojana again stimulus 0, and TOP (tomatoes, onions, and potatoes) to TOTAL (all fruits and vegetables): Operation Greens, 500 crores. 100000cores government spent for boosting the Agri-Infrastructure Fund stimulus was 0, Animal Husbandry Infrastructure Development Fund 15000 crores, out of the 150000 for the Same as above, 4000 corers were Promotion of herbal cultivation It was already included in the AYUSH department's budget under the Union Budget in February 2020 but stimulus 0, Beekeeping initiative 500 with Actual fiscal stimulus in crores respectively

Table 4 Allocation for Areas of Kisan Credit Cards (KCC) Sanctions

Rs 2 lakh crore concessional credit boost to 2.5 crore farmers through Kisan Credit Cards (KCC)

Area in which KCC sanctioned	Number of KCC sanctioned	Area in which KCC sanctioned	Number of KCC sanctioned
Crop Loan	70.31 lakh	Poultry, cattle & sheep rearing, etc	21,961
Crop loan with AH or fisheries activities	1.92 lakh	Fisheries	10,622

Source: FICCI Economic Affairs and Research Division

This table will Examine by Allocation for Areas of Kisan Credit Cards As per the progress, as a result of concerted and sustained efforts by banks and other stakeholders in the direction of providing access to concessional credit to farmers, including Fishermen and Dairy farmers, a major milestone target of covering more than 1.57 crore farmers under KCC, with a sanctioned credit limit of Rs.1.43 lakh crore has been achieved currently KCC Rs 70.31 lakhs, of sanction cropping loan for agricultural activities and also 1.92 lakh for creating Crop loan with AH or fisheries activities. Poultry, cattle & sheep rearing, etc 21,961 and Fisheries 10,622 lakhs with respectively

Findings

This study's majorly findings considered two major objectives, first to know the Status of Agriculture fund allocation in the Atmanirbhar Bharat package, and second to examine the Issues in achieving self-reliance in Indian agriculture this objectified is to find out the package Allocation for agricultural development in India. every finding is based on the table analysis

1. The first one finds the financial status and growth rate for agriculture development in the Atmanirbhar Bharat package in this allocation focus area of Businesses including MSMEs 5,94,550 crores of the amount which as the highest benefit for growth rate on 0.28
2. This study Examines the allocation of the Poor, including migrants and farmers to the 3,10,000 crores least of which as non-benefit for a growth rate of 0.14
3. This study fallows the most importance of stimulating allocation for the second-highest for the agriculture sector 1,50,000 cores and the growth rate is 0.07
4. This study find outs the 48,100 crores for New Horizons of Growth Government Reforms and Enablers, the growth rate was 0.02 which is to least on this package
5. This study will find out the Subtotal amount was 11,02,650 crores and the growth rate of 0.51 Out of a Grand total of 20,97,053 crores and a 2.27 growth rate to the package allocation for the Agri sector
6. Table no 2 will Examine the percentage of GDP in the Agri Infrastructure Fund for farm-gate

infrastructure for farmers and the total outlay is 1, 50,000 cores of package and 0.74% GDP respectively

7. The third Table indicates the allocation of funds tranche of the financial package for a different scheme the total package allocation 150000 crores and out of 10000 crores for beneficiaries' remarks government's investment in skill up-gradation for micro food enterprises actual fiscal stimulus was 0

8. On this package finding the low level of financial allocation was 500 beekeeping initiative remark financial stimulate was 0 It was already included in the Union Budget in February 2020

9. The table 4 shows the allocation for Areas of Kisan Credit Cards (KCC) Sanctions formers totally Rs 2 lakh crore concessional credit boost to 2.5crore farmers through kisan credit cards under the Crop Loan 70.31 lakh amount will spent for the boosting the scheme and Poultry, cattle & sheep rearing, etc 21,961 Number of KCC sanctioned

10. Crop loan with AH or fisheries activities 1.92 lakh Number of KCC sanctioned out of 2.5 crore farmers through Kisan Credit Cards which as very less numbers of allocations with respectively

Conclusion

Aatmanirbhar Bharat Abhiyan promises to provide benefits to everyone from every sector. It aims to be self-resilient to face the competition with the global supply chain. The package will support the poor, laborers, and migrant workers from both organized as well as unorganized sectors. The strategy of Atmanirbhar Bharat Abhiyan seems to give a strong supply-side push by boosting the availability of capital on easy terms and by supporting the agriculture and business sectors. The additional allocation for financial allocation to Agriculture development will help in productively employing returning migrants. etc

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Cryptocurrencies' Impact on the Global Financial System

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DOI- 10.5281/zenodo.7069544

Abstract

The purpose of this article is to provide an outline of cryptocurrency's function in the global financial system. Another important goal of this essay is to understand the basic notion of digital money and to assess the potential of cryptocurrencies in the global financial system. This will be a descriptive study in which an attempt will be made to investigate the many benefits and applications of cryptocurrencies. Digital financial assets are cryptocurrencies for which ownership and transfers of ownership are guaranteed by a cryptographically decentralised system. The rise in the market value of cryptocurrencies, as well as their growing popularity around the world, has created a slew of commercial and industrial economic issues and worries. Acceptance as a kind of alternative currency, as well as the prohibition of any fraudulent use, should be vigorously encouraged.

Keywords: Cryptocurrency, Digital Currency, Bitcoin, Ethereum, SHIBA-INU

Introduction

The early 1990s growth of international financial markets, as well as more recent events, provides some preliminary evidence of international markets' steady trend of expansion and innovation, as well as their main participants, financial intermediaries and regulatory bodies. The tendency of institutional portfolios diversifying internationally will lead to a trend of exposure to emerging economies for these investors, as well as a spread of global derivative finance. International markets are projected to continue to grow increasingly global. Increased risk management in the international banking sector, enhanced market surveillance in an adaptive regulatory environment, more resilient market structures, and the creation of the infrastructure needed for a stable market environment with top priority in the official sector are all part of the breakthroughs. Cryptocurrency is a type of electronic money that uses technology to manage and safeguard its creation while masking the identities of its users. Computer security technologies, information concealment, identities, and more are all covered by cryptography and encryption. 'Monetary money' simply means 'current money.' Cryptocurrencies are digital currencies that are faster, cheaper, and more reliable than traditional government-issued money. Instead of relying on a government to create your money and banks to retain, transfer, and repay it, users deal directly with one another. Transactions are often simple and inexpensive because users can transmit money directly without the necessity of intermediaries. To prevent fraud and manipulation, every bitcoin user can record and verify his or her transactions and transactions in parallel. A "leader" is a digital transaction record that is accessible to everybody. This will be a descriptive study in which an attempt will be made to investigate the many benefits and applications of cryptocurrencies. With cryptocurrency, you don't have to trust a bank to keep your money safe in the form of public papers. You don't have to trust the person with whom you do business to pay you. Rather, you can watch the money being given to thousands of people, as well as the fact that it was received, checked, and documented. This procedure does not require any faith. This particular good attribute is known as 'trust less.'

Research Methodology

This paper is totally based on secondary data.
Secondary data has collected from various book, journals, government reports and articles.
Researchers has taken cryptocurrency Impact on the Global Financial System for the study purpose.

Objectives

1. To gain a better understanding of the notion of cryptocurrency.
2. Identifying cryptocurrency's position in the global economy
3. The benefits and applications (uses) of cryptocurrencies are discussed.
4. To discuss the worldwide economic possibilities of bitcoin.

Cryptocurrencies' Impact on the Global Economy

This is due to the fact that crypto currency is based on a decentralised framework. This means that it is not regulated by any country or current authority. This is the primary difference between traditional and cryptocurrency banking, as the bank is always responsible. Virtual currencies have evolved gradually during the global crisis, which started a decade ago and is still ongoing. They have established a place in society and are already intertwined, as many people use them to pay for a variety of goods and services. You can invest in them to raise and keep your money as well as utilise them as a means of payment. If the global economy deteriorates at any moment, it is a wise move since future concerns impacting your economy are averted.

Cryptocurrencies have only been available in the globe for 10 years, and while society initially did not place a high value on their use, this attitude has changed with time. Everyone was accustomed to utilising tangible money and felt uneasy if they were unable to pay for it. These fictitious currencies were flatly rejected. However, it had an impact. The current belief that money can only function through a centralised financial system is incompatible with bitcoin. Centralized transactions are administered by corporations that monitor and collect money from network transactions. A blockchain of decentralised cryptocurrency marketplaces, on the other hand, is based on a peer-to-peer network (Platform, 2018). In emerging countries, cash flow is managed by a centralised system for which the government is responsible. The problem is that the government is full of people who wish to take advantage of their people's wealth. The most important and developed benefit of cryptocurrencies for citizens in developing countries is improved financial inclusion. As previously established, cryptocurrencies have the potential to significantly reduce transaction time and costs, as well as serve as a type of bank account that can be used to save money and conduct daily transactions. In addition to traditional bank transfers such as the SWIFT method, cryptocurrencies can help speed up and reduce the cost of transactions. By removing some intermediaries for remittance payments, mobile payment operators and cryptocurrency transactions might reduce costs and speed up transactions. Cryptocurrencies can be very promising. Furthermore, lower cryptocurrency transaction costs will boost microcredits because banks and conversion fees will be withheld for each transaction in a smaller amount. Furthermore, cryptocurrencies assist businesses in gaining access to the international market, particularly if they intend to expand. As a result, even if they do not have an international ID bank account, their clients can pay corporations in cryptocurrency from other countries. For example, a website developer in a developing nation can be hired by clients from other countries and paid in cryptocurrencies like Bitcoin.

The Merits of Cryptocurrency for the Economy

Confidential: **-** Analysis of Cryptocurrency's Economic Benefits They are anonymous because the people who utilise them have kept their identities hidden.

Safety: **-** It is a fundamental component because you trust that you will not be completely robbed. This is one of the most significant benefits since it boosts consumer confidence.

Impedes hacking: **-** You can't hack the motions you make, so you can't hack them. This is similar to the previous point, as it proves the safety of cryptocurrencies.

Transparency: **-** Decentralization is overseen by a government blockchain of transactions, which are stored in a public book, providing unparalleled transparency. The movements do not conceal anything.

Mode of transaction that is most cost-effective: - One of the most prevalent uses of cryptocurrencies is to send money across borders. With the use of bitcoin, a user's transaction costs are reduced to a small or non-existent sum. It accomplishes this by eliminating the need for third-party authentication, such as that provided by VISA or PayPal. There will be no need for any additional transaction fees as a result of this.

A quick method of transferring payments:- Cryptocurrencies have always maintained their position as the best option for transactions. Cryptocurrency transactions, whether international or domestic, are lightning fast. This is due to the fact that the verification takes extremely little time to complete because there are so few barriers to overcome. Cryptocurrency, with its decentralised architecture, may be the answer to a developing country's economic growth.

Cryptocurrency Applications (Uses of Cryptocurrency)

Money Transfers at Low-Cost Low-cost money transfers One of the most well-known uses of cryptocurrencies is to send and receive low-cost, high-speed payments.

Invest in innovative early-stage startups: -The rise of digital token-based fundraising has made it possible for anybody with an Internet connection to participate in innovative early-stage software firms while also providing much-needed seed funding to new ventures.

Make confidential transactions: - Users can make anonymous financial transactions with privacy-focused digital currencies like Monero (XMR), Zcash (ZEC), and PIVX (PIVX).

That means anyone can send money without having to explain to a bank why they're sending a huge sum of money, where the funds are coming from, or who they're sending it to, which can slow down the transaction and add extra bureaucracy.

Putting money into innovative start-ups the introduction of digital token-based fundraising has allowed investors with an internet connection to invest in innovative early-stage tech start-ups while also providing much-needed seed capital to new businesses.

Make Dealings in Confidential Mode: **-** This means that anyone can transmit money without having to explain to a bank why they are sending large sums of money, what their origins are, or to whom they are sending them, causing transactions to be delayed and unnecessary bureaucratic processes to be involved.

Way to Store a Wealth: **-** Another intriguing bitcoin application is Way to Store a Wealth. Although you probably do not expect your bank account and assets to be frozen, it happens more frequently than most people realise. Even if they haven't done anything criminal, they will have limited or no access to currency. Unlike cash, digital payments such as cryptocurrencies provide a secure, censorship-resistant alternative to asset storage. Unlike traditional institutions, which are vulnerable to hacking, theft, and fraud, wallets may only be accessed by approved individuals who have private keys.

Availability of Variants: - There are approximately 9000 cryptocurrencies in which people can freely trade via the internet. Additionally, you can quickly create a portfolio of several sorts of cryptocurrencies based on their investment pattern

Potential of Cryptocurrency in Global Economy

Cryptocurrency's Global Economy Potential Traditional monetary and electronic payment systems involve a large number of intermediaries, such as central government banks and private financial institutions. These organisations exist to conduct business, manage large electronic and other facilities, employ people, and require transaction time. To offset costs and profit, these organisations charge varied fees to their system users. Cryptocurrency supporters want a decentralised payment system. Over the Internet, it will be less expensive than traditional and present payment system infrastructures. Cryptocurrency proponents say that, as compared to traditional payment systems, cryptocurrency offers a particularly significant cost-benefit in international money transfers and payments. International transfers often need more intermediation than domestic transfers, including transfers between banks and other money transmitters in different countries, as well as transactions across national currencies. Cryptocurrencies, according to proponents, might save money because they are transactions over the Internet, which are already global, and fiat currencies are not backed by the government. Traditional payment systems, on the other hand, are difficult to estimate in terms of cost and percentage to customers. This publication does not have the resources to do a quantitative analysis of this nature. 54 It's worth noting that some traditional payment systems, and particularly fees intermediaries in these systems, have had high enough prices to raise lawmakers' worries and prompt governmental intervention. Proponents of cryptocurrencies argue that growing the use of cryptocurrencies as an alternative payment channel lowers the cost or eliminates the need to pay it in full.

Conclusion

Overall, as individuals and organizations grow more financially integrated, crypto currencies may have substantial implications for global governments. Cross-border payments, in particular, can be enhanced by reducing transaction fees and time. This is advantageous for peer-to-peer payments, lending, and worldwide commerce. It's also the technology that's behind it. Aids in the fight against corruption by making the fund utilisation mechanism more visible. However, the widespread acceptance of cryptocurrencies and the execution of all three money functions are dependent on all of these benefits, which are currently unavailable due to severe price swings. The lack of backup and centralization does not help to keep pricing consistent. Stronger regulation and political support for cryptocurrencies may help to maintain a stable price level. Cryptocurrencies, on the other hand, may get political support only if the government or central banks control the money supply. Nonetheless, the value of several cryptocurrencies would plummet. Cryptocurrencies are now limited in their ability to aid in the development of underdeveloped countries. The laws that are put in place, as well as the price stability and adoption of cryptocurrencies, will be crucial in the future

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Human Health and the Environment

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DOI- 10.5281/zenodo.7069577

Abstract:

Human health and well-being is affected appreciably by the environment around us. Life in mind peaceful calm and quite environment encourages health and well-being while life in unhealthy and stressful environment causes ill health, morbidity and a general shortening of one's life span. An unhealthy and severe environment tones our mental abilities, strains our physical capabilities directly or indirectly, induces anxieties and diseases of various kinds since times immemorial there has been a tug of war between humans and the microbes conditioned by generations of contact, exposures to immune system and human behaviour. As scientific knowledge developed better and more sophisticated increases were adapted to control the diseases. Many infectious diseases were gradually brought under control. However, micorbial organisms appear to be better-equipped to invade new places, take on to new hosts or ecological niches, change their virulence or means of transmission and develop resistance to drugs. An organism capable of replicating itself a million times within a day has an evolutionary advantage over its host, with change and surprise on its side. Therefore, no matter how much sophisticated disease control measures become, there is always the possibility of another outbreak of an epidemic at anytime and anywhere in the world. Today enormous mobility and speed has been added to this battle while infectious diseases has troubled humanity since times immemorial and have caused health problems and deaths on unprecedented scales, the advancing frontiers of science and technology have added a new threat to the human health. This threat comes from the variety of chemicals and radioactive material which we manufacture, use or discard. During their manufacture, storage and transportation some of the toxic material may escape and contaminate the environment. Twentieth century has witness numerous incidences of accidental or deliberate discharge of toxic chemicals which have caused adverse health effects and death son large scales.

Keywords: Water borne diseases, TB, Typhoid, Cholera, Health effects.

Introduction:

The environment can affect our life drastically by bringing about changes in conditions of life around us. An unhealthy and degraded environment may reduce productivity of agriculture, animal husbandry, and fisheries etc. causing shortages of all types. Poverty and the consequent malnutrition which is rampart in many of the African, South American and Asian countries of the world is a blue print for ill health, morbidity and outbreak of infectious diseases. Malnutrition in particular, predisposes people to a variety of deficiency and infectious diseases which could be avoided otherwise can a healthy diet. A degraded environment may bring about adverse qualitative or quantitative changes in many of the resources we use which in turn may affect human health. The pollution of the stratosphere. Ex. Today threatens to destroy the protective ozone shield. Damage to the stratosphere. Ozone layer shall result in highest amounts of solar ultraviolet radiations to reach down to earth's surface causing increased incidences of cataract of eyes, skin diseases and cancers etc. major human health problems associated with a degraded environment may be of the following types:

A. The threat of infectious diseases
B. The threat of exposure to toxic chemicals, radioactive materials, heavy metals and toxic trace elements.
C. Hidden health effects of contaminated environment on human lives

A. The threat of infectious: A degraded and unhealthy environment may promote the growth of other life forms (insects and pests) that may become a potential threat to human health and well-being. Organic wastes, sewage effluents, excreta, exudates and faucal matter support a rich population of microbes. Numerous bacteria, algae fungi, protozons helminthes, annelids, larval stages of various insects, pests etc thrive on organic matter. Some of these are responsible for causing dangerous diseases of man, animals and plants waterborne diseases are caused by pathogenic microorganisms which are directly transmitted when contaminated drinking water is consumed. According to the world health organization, diarrheal diseases account for an estimated 4.1% of the total global burden of disease and is responsible for the deaths of 1.8 million people every year. It was estimated that 88% of that burden is attributable to unsafe. Water supply, sanitation and hygiene and is mostly concentrated in children in developing countries. Chance contamination of water supplies, food and other edible material with sewage effluents and organic wastes is often responsible for the outbreak of a number of diseases. Typhoid caused by salmonella typhii and cholera caused by vibrio cholera for example mainly spread through contaminated waters. Air borne diseases are diseases which are transmitted through air. Acute respiratory infections kill more than 4 million people each year and are the leading cause of death among children under age 5. This range of infections, which includes pneumonia in its most serious form, accounts for more than 8 percent of the global burden of diseases. Overcrowding and unsanitary household conditions favour the transmission of the disease, which is spread by droplets from a cough or a sneeze or unwashed hands. Although cause and effect relationship between indoor air pollution and acute respiratory infections is difficult to prove in part because people who use biomass fuels tend to be poor and exposed to multiple risks such as overcrowding, tobacco smoke, and malnutrition.

Aim and Objective:

1) To find out infectious diseases.
2) To find out problems of malnutrition.
3) To study the dietary pattern.

Research Methodology:

1) The present study was undertaken in Akluj, Tal. Malshiras.
2) Keeping the objectives of the study in view, structured interview schedule was prepared. Second part of the interview schedule consists of the questions framed for seeking the information about health problems.
3) Clinical Assessment: A variety of clinical features have been described (Jellieffe, Jelliffee, 1990) other micronutrient deficiency status (Malnutrition, Typhoid, Tuberculosis)

Conclusions:

The rapidly changing global trends in the area of food consumption patterns, lifestyles and environment have a tremendous impact on the nutrition and health impact on the nutrition and health profiles of the communities. Typhoid is an infectious disease with an acute fever of short duration and occurs only in humans. Salmonella typhi causes typhoid, salmonella schottmulleri causes paratyphoid. Faces of infection, drinking water or milk and food contaminated by intestinal contents of the patients or carries or by flies, which often transmit the disease. Tuberculosis is an infectious disease caused by the bacillus mycobacterium tuberculosis. It affects the lungs most often, but may also be localised in other organs such as the lymph nodes or kidneys or it may be generalised climate changes is the single biggest health threat facing humanity. The impacts are already harming health through air pollution, diseases, extreme weather events, forced displacement, food insecurity and pressures on mental health. Every ear, environmental factors take the lives of around 13 million people.

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Quality characteristics of Nutri Probiotic Lahi (Sorghum Puff)

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DOI- 10.5281/zenodo.7069585

Introduction

Sorghum is an important food staple in many developing countries. Sorghum can be processed in various value-added products such as poha, semolina, puffs, hurda. Sorghum Puffing is a simple inexpensive traditional food technology. It involves hydrating and incubating the grains followed by heat treatment. High temperature allows grain starch to get pre gelatinised in a short time and the pressure allows the endosperm to expand from bran. In puffed grains lipase enzyme gets deactivated which increases the shelf life of the product. Anti-nutrients like phytic acid content get reduced during puffing. Puffed sorghum are consumed in several states of India as a snack. It is similar in flavour to popcorn.

Nutri Probiotic Lahi is a healthy dish. It is suitable for every age group but more beneficial for early childhood, childhood, pregnancy, lactation period because Nutrition requirements are more in these age groups especially Macronutrients and Micronutrients like Energy, Protein, Iron, calcium etc.

Objectives

- To get more beneficial health benefits from puffed sorghum.
- To get quality nutrition with less physiological activities.

Methods

This study was carried out to compare quality characteristics and physiological activities by using home-made fresh curd and fresh fruits in puffed sorghum. Probiotic potential of lactic acid bacteria presents in home-made curd. As home-made fresh curd added in puffed sorghum probiotic activity increased

Preparation of Nutri probiotic Lahi

Ingredients

- 50 gm Curd (Fresh curd Home prepared is better)
- 02 Medium size Banana (200g)
- 100 gm Jowar Lahi (Sorghum puff)
- Few Raisins (4-5)
- Lemon Juice (1 teaspoon)
- Few curry leaves
- Pomegranates seeds ½ katori
- 02 green chili (chopped or according to individual taste)
- Salt and chaat masala to taste
- Coriander leaves (1 teaspoon)

Method

- Clean wash and keep aside jowar Lahi (sorghum puffs)
- Beat curd properly

- Wash and chop finely curry leaves and green chills
- Take a bowl, and add beaten curd, mix well washed Lahi, pomegranate seeds, lime juice, salt and chaat masala.
- Mix well all the ingredients.
- Finally, before serving peel and chop 1 banana mix well in Lahi bowl
- Add raisins and garnish with 1 remaining banana and coriander leaves.

Instructions

- All ingredients should be fresh for making the recipe.
- Use homemade curd.

Cooking time

No cooking is required. Easy to prepare.

Nutrition value

Curd

Curd	Protein	Calories	Fat	Carbs	Calcium
50g	5.88 g	50	2.1g	1.72g	41.5mg

Curd acts as a great probiotic so it provides stronger immunity. It prevents infections. It makes digestion better. It strengthens bones and teeth health.

Banana

Banana	Protein	Calories	Fat	Carbs	Calcium	Iron	Potassium
200 g	2.57g	210	0.78g	53.9	12mg	0.61mg	845mg

Bananas are one of the most popular fruits worldwide. They contain essential nutrients that can have a protective impact on health. Bananas contain fiber, potassium, folate and antioxidants. They encourage digestive health.

Jowar Lahi (Sorghum Puff)

Sorghum Puff	Protein	Calories	Fat	Carbs	Dietary fiber	Sodium
100g	08g	380	02g	84g	08 g	160mg

Sorghum is a nutrient packed grain that can be used in many ways. Its rich in vitamins and minerals like B vitamins, magnesium, potassium, phosphorus iron and Zinc. It is known to be rich in phenolic compounds. Many of which acts as antioxidants.

Raisins

Raisins	Protein	Calories	Fats	Carbs
05	0.08g	08	0.01g	2.06g

Raisins are a healthy dried fruit that one can easily to one diet. Raisins contain essential antioxidants that contribute to eye health. They contain polyphenols that prevent free radical damage.

Lemon Juice

Lemon is high in vitamin C, a primary antioxidant that helps protect cells from damaging free radicals. It aids in digestion. It prevents bad breath. It promotes hydration in the body.

Curry Leaves

Regular intake of curry leaves impart heart healthy properties by strengthening the heart muscles lowering cholesterol levels.

Pomegranate seeds

Pomegranate are rich in antioxidants and flavonoids. Both of which are known to prevent free radicals from damaging cells.

Green chili

It is loaded with vitamin C and beta carotene. Green chilies are great for healthy eyes, skin and immune system.

Coriander leaves

Coriander leaves are dense in fiber and antioxidants. Daily intake of coriander leaves enhances digestion, spikes metabolism.

Health Benefits of Nutri Probiotic Lahi

- It is high in Protein, Fiber and energy.
- It is rich in iron, vitamin C, vitamin B6, magnesium, calcium.
- As curd contains a lot of good bacteria, it helps in digestion.
- It also helps in beating the summer heat and enhances stamina and vitality.
- It keeps the skin youthful, pigment free.
- It has also shown various defence factors like protecting the immune system and regulating it in many ways.
- Banana as a fruit has multitude of health benefits like it is good source of prebiotics that activate friendly probiotics.
- The potential biological activities of banana such as antidiarrheal, ant ulcerative, antimicrobial, antioxidant, hypoglycaemic wound healing antilithiatic and anticancer activity.
- Bananas aid in the body's retention of calcium, nitrogen, and phosphorus, all of which work to build healthy and regenerated tissues.
- some studies show that bananas can help improve your mood whether you have the blues or are suffering from PMS.

Result

The results of the study show that the physiological activity and quality characteristics of adding home made fresh curd and fresh fruits containing puffed sorghum to value added improvement.

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Panchayat Raj Institutions and Empowerment of Dalit Women in Rural India

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Abstract
Achieving the empowerment of Dalit women is one of the progressive reforms brought on by local authorities in India. However, ongoing heterogeneity focuses on the disproportionate representation of women from diverse cultures and caste classes. While the emancipation of Dalit women (the most marginalized and impoverished segment of Indian society) is an important human rights problem in itself, in the face of a world afflicted by caste politicization, it also facilitates the realization of a multitude of other associated human rights associated with the same caste community. Dalit women's democratic voice and decision-making capacity in essential facilities, economic growth and social justice are crucial factors in questioning and changing systemic caste class segregation towards their substantive inclusion and allowing them to understand their constitutional rights. Political involvement in this regard often requires the attention of the state and the increasing role of non-state players in ensuring and respecting equitable political voice and social appreciation for these women. It involves a restructuring in power ties both within the structures of municipal government and within the grassroots social setting. In this regard, the paper argues that India has given ample room for grassroots women's political empowerment by offering a quota concept in the concept of local governance. Yet, to increase, stabilize and grow on an equitable footing, challenging the fractured Indian social framework, it is essential to evaluate and locate the empowerment problem of Dalit women through a het.
Keywords: Panchayat, Dalit Women, empowerment, perspectives, liberal, heterogeneity, consequence, societal transformation, constitution.

Introduction:
Between human rights in India or elsewhere in the world, the most critical problem is the heterogeneity of problems related to the rights of every unique social community in the specific sense of space and time. The human rights tale of Dalit women in India is not that different. As far as the Dalit group is concerned, this group has endured oppression and violence and has left it vulnerable on various fronts: religious, economic and political. While the tradition of untouchability has been abolished by statute in India, the civility of caste is still a remote illusion and missing from culture, both: Dalit men and women survive further violence at the end of the day. In this sense, several- time to measures have been taken by the government to resolve issues relevant to the oppressed section and, in particular, the Dalit community, including the reservation of women's seats, the Scheduled Tribes (STs) and the Scheduled Castes (SCs) are among the path-breaking initiatives. With many of the renovated and newly introduced features of the Panchayati Raj Institutions (hereinafter the PRIs) following the 73rd Amendment Act, the most ground-breaking in terms of gender equity and the representation of women and the weaker group of women is the allocation of 33 per cent of the seats for women and SCs and STs about their population in the village at all three stages. When these protections are implemented, a new collection of problems become present. It has begun to obstruct the execution of these protections and leave the aim partly fulfilled. These problems have become especially burdensome for downtrodden women, such as Dalits and tribal, to question their involvement in political life. Comparatively, it is more urgent for Dalit community women to face oppression on several fronts: caste, class and gender. Since the paper deals with the empowerment of Dalit people, it is essential to understand why Dalit women need special attention when dealing with their empowerment.

Dalit Women and Serious Abuse:
Dalit women make up a large proportion of the Indian community. As a different social group, it is essential to discuss the concerns of this particular social group in the context of unique forms of oppression and abuse. In this sense, the grassroots PRIs may be seen as an emancipatory phase. Dalit women may then be elected to a women's seat and a scheduled caste seat. But the argument is that as the most vulnerable social category in society, a Dalit woman carries the brunt of all three differences: caste, class, and gender. A Dalit woman is faced with a particular type of abuse that results in socioeconomic and political insecurity. Consequently, she typically loses the effort to hit the forum to contest the elections. If she is elected somehow, she is the target of normal grassroots activities such as sarpanch-pati and panchayat pati, where on behalf of her husband's husband's serves as a sarpanch or other roles, whatever the case might be. From Ruth Manorama's study on violence against Dalit women in Hague, several instances of violence against Dalit women in rural areas can be addressed here. Traditionally, these forms of abuse are reserved for Dalit people. It includes: intense verbal harassment and sexual epithets, nude procession, dismemberment, forced urine and faeces, branding, teeth removal, tongue and nails, and crime, including murder after witchcraft has

been declared. Dalit women are often targeted by rape as part of higher-ranking collective abuse, but Dalit women and girls are also sexually abused and raped within their groups. The devadasi (or jogini) forced temple prostitution scheme is the most severe type of slavery for Dalit people. Despite its magnitude and frequency, most incidents of violence against Dalit women are not reported. The shortage of law enforcement has left many. Dalit women are reluctant to approach the justice system to pursue redress. As women are mostly ignorant of the rules, their confusion is readily abused by their critics, the police and the judiciary. Even after the cases are reported, the absence of due examination or the judge's case and gender prejudice will contribute to acquittal. The plight of Dalit women requires specific consideration. Dalit women are one of the biggest socially isolated communities in the world: they make up more than 2% of the world's total population. Three times, they are discriminated against: they are poor, women, and Dalits. While both Dalit men and women suffer from the same conventional taboos, Dalit women are more frequently faced with these. They are discriminated against not only by people of higher castes but also in their own families, where men are powerful. Consequently, Dalit women have less influence within the Dalit movement itself. While they are involved in significant numbers, most leadership roles in organizations, civic bodies and societies have been occupied by men. Addressing the human rights of Dalit women would strengthen their skills, which would contribute to their complete growth. Democratization of empowerment that is part of collective control is what the quota of women in PRIs is. Studies in various countries of the world have confirmed that, despite the requirements of affirmative action and the quota rendered to the men and women of the Scheduled Castes, their political status has not reached a degree where they can be assumed to be able to work comparatively separately, as opposed to being able to function independently. Proxies or orders from influential persons in the villages, In reality, an analysis by Leiten and Srivastava suggests that their Jat respondents in Uttar Pradesh claimed that if the citizens of the Scheduled Castes were pradhans of panchayats, this would lead to an "inversion of the normal social order" The condition of the woman members who are elected presidents by Women's delegates are ill of gender problems, and this can be seen in their working as complete members of the panchayats. Dalit women typically controlled my men from their kin, caste, and other influential groups in the villages.

Dalit Women And Panchayats:

There is an account of the Dalit women addressed by Professor Niraja Gopal Jayal concerning the empowerment of Dalit women through these PRIs; a Dalit sarpanch, Gundiyabai Ahirwar, of Pipra Village in the Tikamgarh District of Madhya Pradesh lifted the national flag in her village on Independence Day, which was prevented from conducting this ceremonial duty because the majority of Yadav in the village felt that In India, women face the responsibility of landless farm labour, a condition born out of deprivation and hardship. Consequently, the maximum percentages of female job participation of 45 per cent and 38 per cent are for advisai and Dalit people, respectively, as a whole, just 30 per cent are incomparable to the percentage mentioned above. Around the same time, these women are exposed to sexism, harassment and sexual exploitation by the upper strata and earn less than the legally prescribed salaries. There are gaps in the educational prospects and food consumption of boys and girls in their households. Whether it is the general command that they are elected to power or their willingness to engage in panchayat decision-making processes, it is no wonder that the condition of the Dalits in the panchayats has not been of a higher order. Studies on the various states of the world have shown that Dalits always take orders as representatives from the individuals of the ruling castes and groups. Thus it will not be correct to assume that they have achieved a stage where they can work comparatively independently. Fair citizenship and political deepening are the direct implications of the freedom to vote. Both the creation of political parties and the electoral mechanism represent the heavy involvement of Dalits in politics and their confidence in democratic structures and processes. Surviving a confrontation with the colonial and post-colonial states and mainstream political parties is the tale of Dalit's fight for equitable citizenship rights. To be part of the inner truth of the Hindu society. What was deemed pure and private by the Hindu political establishment stood in direct contrast with the Dalits' claim to citizenship? The devolution of control has generated a central political area that was historically missing. Its implementation has given birth to a new dynamic in the rural policy framework and has given rise to a new revolutionary rural policy. Political empowerment born out of special arrangements for the oppressed sector, such as Dalits, Adivasis and women, has led to the rise of participatory democracy in rural society, which in turn has led to the empowerment of Dalit women by PRIs.

Four states have a 50 per cent reservation for women in PRIs: Bihar, Uttarakhand, Madhya Pradesh and Himachal Pradesh. The UPA government has also rendered the same law as the 110th amendment and approved the Bill in line with the Standing Committee on Rural Growth requirements. The Bill was first presented in LokSabha in November 2009 and followed the committee procedure. Efforts were again made and re-introduced in 2010 in the LokSabha after a study had been presented, but sadly it lapsed in 2014 at the end of the 15thLok Sabha. In 2016, Birender Singh, Minister of Rural Growth, called for a constitutional change to raise the women's quota in PRIs from 33% to 50%. Some other reforms expressed by the Minister have been to reserve a separate ward for a continuous duration of two terms of five years so that development work can be carried out on a continuous basis46 This enhanced room for women in Panchayats can expand the platform for their involvement in several ways and capacities.

Nature of Women's Participation:

To understand the effect of PRIs on women's empowerment and advancement, it is essential to have a prior understanding of how PRIs help empower Dalit women while at the same time promising their promotion and demanding their reserved representation in elected bodies. The deeply stratified rural culture on the lines of caste status and gender indicates that the marginalisation of women is not based exclusively on gender but rather on the intersection of caste, class and race. That gender contributes to their subordinate role. In the rural Indian sense, however, women are marginalised, in addition to their caste, by class locations. It hinders their engagement since the higher the stratification of culture, the more levels of women there are. Due to the reservation of seats in PRIs, women will engage in political activities and become elected members of panchayats in different capacities.

The strong presence of informal networks is a central concern in the development of municipal government. These are the typical popular communities that reside in any village. These classes existed and enjoyed supremacy and a voice in decision-making in all matters relating to any state issue. But in situations, specific networks often pose problems that are impossible to resolve. Informal organisations are used as a challenge to be mitigated rather than a power to be harnessed. It has been shown that specific organisations are troublesome since the word governance incorporates organisations rather than mere executives. Therefore, looking at the broader field of governance, including society and the economy, informal institutions and contingent on them shadow institutions, it is necessary to take charge of them, 'latently, if not visibly. These organisations are the cause of injustice in the local rural governance structure. Shadow government networks are not associated with Raab and Milward's Dark Networks or Cartier-Bresson's Exploitation Networks which are sources of illegal and antisocial activity. Problems such as lack of transparency, faith, arbitrariness, power imbalances, lack of communication, etc., are core concerns that stand in the way of a stable and easy public service delivery system.

Coordination and hence a state of equilibrium must be preserved to produce better outcomes. The superimposition of political structures and the absence of familiarity with the social condition is a significant explanation for the breakdown of the mechanisms and methodologies involved in establishing a local government in India. Whereas informal local government structures are usually intercaste structures, have "functional support" and "progressive support" as well as "oppressive proprietary characteristics and are not linearly diminishing or decreasing in the face of either modernity in general or increasingly modern elected local councils in particular. Instead, they communicate, sometimes in a constructive way, with these structured municipal government structures.

Participation And Empowerment:

Empowerment is primarily related to words such as capacity, engagement and growth, where both meanings are interdependent and interconnected. PRIs transparent forums for women to maintain their opinions on decision-making and allow them to take decisions on the position of women sarpanch. Higher-level engagement by citizens is a medium for transparency and one of the fundamental characteristics of democratic governance. Conscious decisions should be taken on subjects of interest to public existence, and facilitating those decisions should be consulted. Knowledge would allow citizens to make those decisions. Informal citizenship is thus the central democracy; otherwise, democracy will not fulfil its function and will exist theoretically without any realistic applicability. Indeed, the state's funding for welfare and wellbeing programmes may be strengthened and measured by the extent of participation. Empowerment is a term that originated with the empowerment of women in the 1960s. The word has increasingly been identified with topics such as civil society, association and organization. It is now at the core of every debate that stresses the involvement of the vulnerable in development. Historically, the idea of empowerment has been examined mainly from two perspectives: the person where 'psychological empowerment is studied' and, secondly, 'individual empowerment.' Knowledge is a catalyst to engaged citizenship and engagement, societal transformation, and lifelong learning. Knowledge is essential to help maintain a democratic society. Feminism, Theology, Freudian

Psychology, the Black Power Revolution, and Gandhism in India are some of the trends that arose as landmarks of the usage of the word liberation later on. At the expense of redundancy, the word undoubtedly first appeared in the feminist and progressive debates of the 1980s and eventually became used and inspired by the revolutionary vocabulary of International. Empowerment applies to values such as the capacity of people and communities to intervene to maintain their well-being or the freedom to engage in decision-making that affects them. The much-praised work of Barbara Solomon, "Black Empowerment: Social Service in the Disadvantaged Groups," gives way to the use of a phrase restricted to the United States (US) before the 1970s with an emphasis on the vulnerable and marginalised, there was a great deal of presence in study and policy formulation. The word has now acquired enough presence in social care providers and social protest campaigns of various kinds. The past of tern empowerment in the construction lexicon has its formal presence in the feminist revolution that started in the global south with the emergence of DAWN (Construction Alternatives with Women for a New Era), established in the city of India in 1984. Following the row, after the celebrated work, "Empowerment: The Strategy of Alternative Growth" by John Freidman, published in 1992, the emphasis on the idea of Empowerment eventually changed to empowering the disadvantaged. Friedman was the first to shift the focus of the concept of Empowerment to the underprivileged. Indeed, the word was blamed for its fluidity. However, the term "women empowerment" has traditionally been defined in most policy papers. While used in various ways, such as democratisation and decentralisation, the word lacks clear reference and remains loosely defined. From 1960 to 1980, creation and growth models have been debated and examined for almost two decades. Values such as fairness and democracy have been granted priority in terms of political concerns. And the word empowerment has been established, "Giving control to a specific unprivileged segment of society. The Empowerment of Dalit women is a severe problem given the kind of oppression and abuse recorded in different media. The Empowerment of Dalit women by PRIs will prove promising and help to control the number of cases of prejudice and harassment. It was a tragedy that Dalit women faced discrepancies from different directions. There is a tiny room for Dalit women in the Dalit movement itself. As a consequence of this, Dalit women slip into the category of the most marginalized social community.

Conclusion:

However, the PRI idea brought about a progressive change given the challenges and concerns connected with the Consumer Panchayats Institutions before the entry into force of the 73rd Amendment Act. The essence of Dalit women's engagement is still fractured through various stratification lines in society, and the study needs to be taken to the fore. Dalit women, who are among the most vulnerable groups, need to be researched from various fronts to clarify their presence in and an impediment to panchayats. As questions of a gross sort when it comes to violence against them, the multiple forms of ensuring their sufficient representation in these structures of devolution of authority must be streamlined in the form of violence, involvement and expression and, ultimately, their strong voices discussing their problems must be the elected representatives of the panchayats. More so when talking about their continuing empowerment to ensure their improved socio-economic and political standing.

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A Comparative Study on Water Quality of Two Lakes of Metro City and Effective Remedial Measures, Mumbai. India

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DOI- 10.5281/zenodo.7084580

Abstract:

The essence of life is water. When it comes to their geological and geochemical properties, the rivers, lakes, and estuaries of the water bodies are continuously subjected to a dynamic state of change. The investigation on the levels of water pollution along the Powai and Vihar Lakes has been carried out. Seven sites on each of the two lakes were chosen for sampling. For two years, water samples have been taken during the summer, monsoon (pre-monsoon and post-monsoon), and winter seasons. A study has been done on the physico-chemical characteristics of water samples. Total dissolved solids, D.O., C.O.D., and B.O.D. have been measured in the water sample that was taken, along with temperature, pH, conductivity, and pH. BOD and non-biological oxidizable organic substances are included in the COD measurements. According to WHO regulations, the BOD to COD ratio for fresh water is less than 0.3, whereas the ratio for sewage-mixed, highly organically contaminated water is greater than 0.3. This phenomenon is readily demonstrated by a comparison of the water from Powai and Vihar lakes. Powai Lake's BOD and COD are significantly higher than Vihar Lake's. The discovery will be used as a starting point for further research and to understand how various contaminants behave in the ecosystem. Additionally, it will assist in determining the efficacy of corrective actions and in preventing and controlling the decline in the health of the lake ecosystem.

Key words: Physico-chemical Parameters, Mumbai Lake

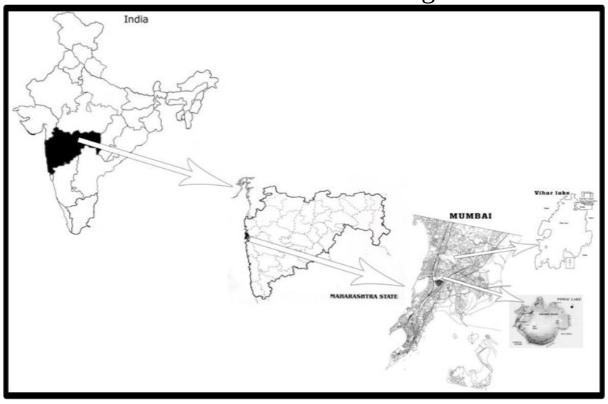
Introduction:

Lake water quality is a complicated topic that covers the physical, chemical, hydrological and biological properties of water as well as the intricate relationships between them. "The term water quality is defined as those physical, chemical, or biological qualities of water by which the user evaluates the acceptability of water," according to the user's point of view. We use water for a variety of purposes, including drinking, bathing, transportation, recreation and irrigation of crops. The question of "for which or for what goals should the standard set-entirely for the human use or for the well-being of aquatic life or perhaps for both" arises when trying to determine quality requirements and standards. A criterion that ensures water quality for human consumption might not always satisfy the needs of some aquatic creatures. The prevention of water pollution has always been tackled from the perspective of human health. However, due to the numerous uses for which water is used, it is crucial to view the issue of water pollution in the context of the overall aquatic ecosystem. Urban lakes are crucial components of both the biological networks and the urban water system. There has been environmental deterioration to varied degrees in lakes and reservoirs around the nation. The encroachment, eutrophication (from domestic and industrial effluents) and silt are the causes of the degradation. The main causes of lake degradation, especially in urban lakes are human habitations and public wastewater sources. The population has increased dramatically over the past century but there hasn't been a comparable increase in public infrastructure. As a result, lakes and reservoirs especially urban ones have turned into sinks for toxins. Due to deforestation, heavy agricultural usage, subsequent erosion and increased silt flows brought on by anthropogenic pressures in the catchment, the catchment area has deteriorated, lowering the quality of the water stored in the lakes. All urban lakes are now in hyper eutrophic states as a result of infrastructure expansion, housing pressure, and encroachments. With regard to their use, particularly as a source of municipal water supply, it is crucial to identify the chemical, physical and biological features of natural and freshwater resources. We began this research project as a result of the daily increase in pollution in the area of Mumbai.

Material & Methods:

Maharashtra is an Indian state with Mumbai as its capital. It is bordered to the west by the Arabian Sea and is situated at 18^{o} 55'N latitude and 77^{o} 50'E longitude. It is the sixth-most populous city in the world and the most populous city in India. It is also regarded as India's commercial capital and the country's economic centre. Seven significant lakes may be found in and around Mumbai. These include Vihar Lake, Vaitarna Lake, Batsa Lake, Modak Sagar Lake, Powai Lake, and Tansa Lake. Powai Lake is an artificial lake located in Mumbai's Powai Valley, where a Powai Village with a group of huts once stood. Powai Village was supplied with water by a rivulet created by the rainwater from the western Ghat's lowest slope, which can now be seen as the hillocks on the lake's southern end with streams coming from the eastern and north eastern slopes of the hills. Sampling Location and Collection techniques: Powai and Vihar lake has been visited to select the sites from where the water is to be sampled. Seven sampling stations were randomly selected for the present study depending upon the pollutant inlet source and the turbulent or quiescence zones in both the lakes Season wise sampling was done for two years 2014-2016 Sampling station location of Powai and Vihar Lake were as follows.

Season wise collection of water was made between 10.00 am to 1.00 pm hours from various sampling sites of both the lakes. At a depth of one meter, water samples were taken. Prior to sampling, 3L polythene bottles were washed twice with distilled water after being rinsed with 0.1N chromic acid. To avoid the premature release of dissolved gases during the transit period, the samples were filled to the brim without leaving any room. The physical-chemical analysis was carried out in accordance with the APHA's recommended procedure for testing water and wastewater.



Map of Sampling area

S_1 Renaissance hotel
S_2 Ganesh Immersion site
S_3 Devi temple
S_4 Ram Bagh and Hiranandani

Satellite image showing sampling stations in Powai lake

S_5 Chand Shah Wali Dargah
S_6 (NITIE)
S_7 Sahi Banguda

Satellite image showing sampling stations in Vihar lake.

Table 1: List of techniques for the analysis of required parameters

Parameters of water analysis	Methods
Temperature	Reverse thermometer
pH	pH-meter
Conductivity	Conductometric method
D.O	Winkler's method
C.O.D	Dichromate reflux
B.O.D	Azide modification
TDS	Evaporation method

Results and Discussions:

Seven sampling stations collected data on the Physico-chemical parameters of Powai and Vihar lakes and those results are compared to the relevant WHO, BIS, and ICMR requirements for drinking water. The physical and chemical parameters temperature, pH, electrical conductivity, total hardness, total alkalinity, dissolved oxygen, chemical oxygen demand and biochemical oxygen demand are all taken into account in the current investigation. Temperature, Electrical conductivity of the water samples are expressed as °C and µS/cm respectively. pH value has been expressed with no unit. Whereas other parameters are expressed in mg/L.

All investigation data have been depicted through graphical representation

Color, odor and Taste:

Only the color that can be attributed to the substances in solution after the suspended have been taken out is thought to be the genuine color of water. Decomposing biological materials is the most frequent source of genuine color. The presence of metallic components like iron and manganese compounds, humus, peat tannins, algae weeds and protozoa causes the color of natural water to be visible. All lake water samples of study area in all seasons were found colorless, odorless with unobjectionable taste.

Temperature:

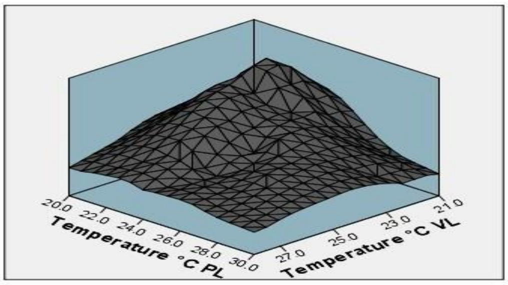


Fig 1: Variation of Temperature value

When evaluating the quality of the water, temperature is an essential consideration. The impact of temperature on a number of other factors, in addition to its own, can change the chemical and physical characteristics of water. Because carbon dioxide and other volatile gases that give water its flavor are released at high temperatures, an increase in temperature reduces the water's mobility. The solubility of gaseous components, particularly oxygen, is impacted by high temperatures and decreases. These have an impact on the development and function of aquatic microbes, which in turn have an impact on the oxidation of organic materials. While sample S_2's temperature was found to be at its highest during the summer of 2014, sample S_1's temperature was recorded to be at its lowest during the winter of 2014. For all samples, winter seasons had lower temperature values whereas summer seasons had higher temperature values. In comparison to winter and summer, the monsoon displayed moderate temperature values. Due to more solar radiation than in the winter and monsoon season, water temperature rises in the summer. From winter to summer, the water's temperature increased and from the monsoon onward, it decreased. According to Powai Lake's two-way ANOVA results, water temperature varied significantly between seasons (F=13.208 P 0.01) and across sample stations (F=0.33) . While there was no difference in Vihar Lake's water temperature across sample stations, there was a significant difference (F=34.656, P=0.01) between seasons.

pH:

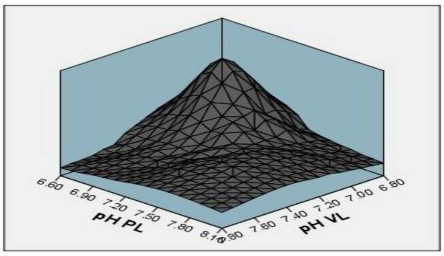


Fig 2: Variation of pH value

The concentration of hydrogen ions in water and the degree of acidity or alkalinity are both measured by pH. Given that it has a significant practical impact on the majority of chemical and biological reactions, A pH of 4 or below produces a sour taste, while a pH of 8.5 or above produces an alkaline taste. pH of water samples of Powai and Vihar lake varied from 6.70 to 8.08. So pH of both the lake water remained towards the alkaline side only. The maximum pH was recorded in summer season for water samples at S4 in 2014 and 2015. The minimum pH 6.70 was recorded in post monsoon season for water sample of Powai lake at S4 in 2014.At Powai Lake, the summer season in 2014, the maximum pH of 8.08 was noted. The water's maximum pH in Vihar Lake was S_5 during the 2015 monsoon, and its lowest pH in the winter of 2014 was 6.84. Lower pH values were recorded in the summer and monsoon seasons, which may have been caused by the decomposition of organic waste and the high respiration rate of aquatic creatures during the winter. There was little difference in the pH readings during different seasons. Powai and Vihar lakes' pH levels were largely constant over the course of the investigation. The low range of fluctuation of pH in both the lakes under the present study is attributed to almost stable water chemistry. The pH levels of the water samples were also determined to be within the range (6.5-8.5) established by the WHO (2004), ISI (1993) Standards for drinking water, and BIS (1986) for irrigation purposes.

According to Powai Lake's two-way ANOVA results, pH showed a significant effect between seasons (F=7.816 P0.01) and an insignificant effect between sample stations (F=0.859). Temperature and pH exhibited a strong positive association (0.403).

Electrical Conductivity (EC):

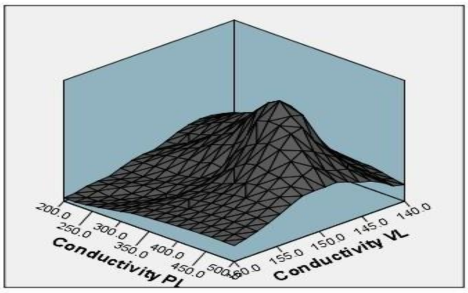


Fig 3: Variation of Conductivity value

Water's capacity to conduct electric current is gauged by its electrical conductivity (EC). Due to its strong association with dissolved salt concentrations in lake water, which are frequently linked to sewage discharge and are thus a recognized water quality criterion, it is regarded as an indirect sign of pollution. The data regarding electrical conductivity of Powai and Vihar Lake reveals that the conductivity varied from 160 to 520 S/cm at different sampling stations, which in turn indicates the inorganic pollution load of water. It denotes the quantity of total dissolved solids, which in turn denotes the amount of inorganic pollution in water. The electrical conductivity was measured at S_2 at its highest and S_7 at its lowest during the summer. High EC values at sampling station S_2 point to the existence of significant levels of dissolved inorganic materials in ionised form, which in turn point to the presence of significant levels of inorganic pollution in the water. Dilution may be the cause of lower EC values during the monsoon, but geological effects may be the cause of greater values during the winter. The variability of electrical conductivity may be due to the natural concentration the ionized substances present in the water. EC exhibited a significant effect between seasons (F=14.346 P0.01) and an insignificant effect between sample stations (F= 0.063), according to the results of a two-way ANOVA of Powai Lake. EC and pH had a strong positive connection (F=0.447 P0.05), which was observed. While Vihar Lake's two-way ANOVA findings show that EC had a negligible influence between sample stations21 (F=0.089) and a substantial effect between seasons (F=4.964, P0.05). pH and EC had a negative connection (F=0.8358 P0.01).

Total Dissolved Solids (TDS):

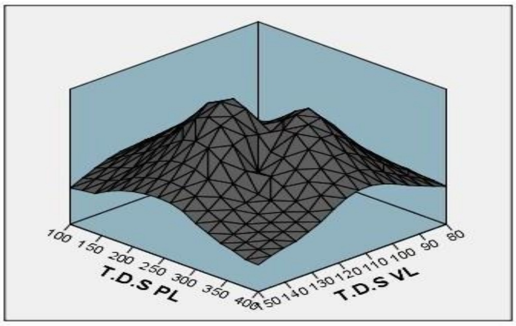


Fig 4: Variation of TDS value

Total Dissolved Solids (TDS) is a measurement of the total amount of inorganic and organic compounds that are dissolved in a liquid in molecular, ionized, or microgranular (colloidal sol) suspended form. Freshwater systems are typically the only ones in which TDS are discussed because saltiness includes some of the ions that make up the definition of TDS. Although TDS is not generally regarded as a primary pollution (e.g., it is not deemed to be associated with health effects), it is used as an indication of aesthetic characteristics of drinking water and as an aggregate indicator of the presence of a breed array of chemical contaminants. The main application of TDS is in the study of water quality for streams, rivers, and lakes. Agricultural and residential runoff, leaching of soil contamination, and point source water pollution discharge from industrial or sewage treatment plants are the main causes of TDS in receiving waters. Inorganic salts, organic matter that dissolves in silica, and carbonates, bicarbonates, chlorides, sulphates, phosphates, and nitrates of Ca, Mg, Na, K, and Mn are the principal dissolved solids in natural water. A high concentration of dissolved solids in water systems raises the need for biological and chemical oxygen, which ultimately lowers the concentration of dissolved oxygen in aquatic systems. TDS ranged from 80 mg/L to 380 mg/L in lake water samples taken from several monitoring locations, showing that the majority of surface water samples are below allowable levels. TDS levels peaked in the post-monsoon season at S_4 (380 mg/L) and fell to S_7 (80 mg/L) in the winter. The seasonal variations in TDS levels at several locations in both lakes followed a pattern akin to that of conductivity. Winter had the lowest levels and post-monsoon the highest. The increase in the load of soluble salts, mud, humus, nutrients, and surface runoff, as well as the leaching of fertilizers, faeces, and sewage from the catchment area, could be responsible for the peak value of TDS in the summer. More than 500 mg/L of TDS in water is not regarded as good for drinking. 1500 mg/L is permitted only in cases when it is unavoidable.

The two-way analysis of variance (ANOVA) results for Powai Lake show that TDS had no significant effect between seasons (F=1.518) or between sample stations (F=145 0.026). The TDS of Powai Lake significantly increased with increasing temperature and EC (F=0.447 P0.05).

However, results from a two-way ANOVA on data from Vihar Lake show that EC had a negligible influence between sampling stations21 (F=0.045) and a substantial effect between seasons (F=4.338, P0.05). EC demonstrated a positive association with pH (0.651) and EC, but a negative correlation with temperature (-0.099). (0.545).

Total Alkalinity (TA):

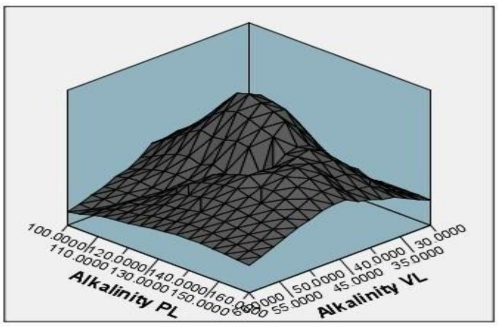


Fig 5: Variation of Alkalinity value

Water's alkalinity gives an indication of the natural salts that are present. It is a measurement of an acid-neutralizing chemical in water. The main sources of natural alkalinity are rocks that contain carbonate, bicarbonate, and hydroxide chemicals. However, borates, phosphates, silicates, and other basic substances might also contribute. The amount of total alkalinity (TA) plays a significant role in defining a water body's ability to operate as a buffer. For Powai and Vihar lakes, respectively, the alkalinity values in the study were between 92.30 and 159.00 mg/L and 17.80 and 33.80 mg/L. At S_1, the highest alkalinity levels were seen during the summer, and at S_5, the lowest levels were observed during the winter. At all of the stations used for the current analysis, the highest total alkalinity was noted in the summer and the lowest in the winter. The decrease in alkalinity during the winter months may be brought on by lakes filling up more, which dilutes the salts in the water. Summertime alkalinity is higher because carbonates and bicarbonates slowly dissolve in the environment. The alkalinity levels at the sampling locations S_1, S_2, S_3 and S_4 were greater in the summer. The other sites that displayed increased alkalinity levels in the post-monsoon period may have been caused by an increase in the carbonate and bicarbonate concentration in lake water. According to Powai Lake's two-way ANOVA results, TA had a significant effect between seasons (F = 17.614 P0.01) and an insignificant effect between sampling stations (F = 0.044). Temperature, EC, and TDS all significantly correlated positively with the TA of Powai Lake. Similar findings from the Vihar Lake two-way ANOVA show that TA had a significant effect between seasons (F = 29.202 P 0.01) and an insignificant effect between sampling stations (F=0.340). The alkalinity of Vihar Lake, however, showed a positive correlation with pH, EC, and TDS but a negative correlation with temperature.

Total Hardness (TH):

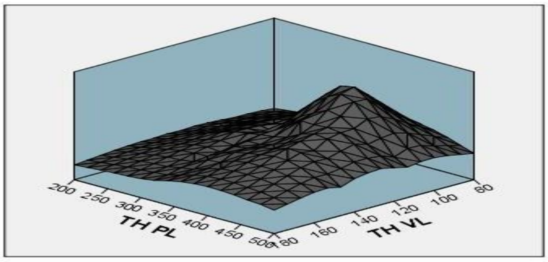


Fig 6: Variation of TH value

Hardness is characteristic of water which does not give good leather with soap. This property of water is due to the presence of bicarbonates, chloride and sulphates of calcium, magnesium and other salts. Hard water is mainly an aesthetic concern because of the unpleasant taste. In present investigation in Powai lake TH varied from 210 mg/L to 500 mg/L. S1 showed minimum hardness during post monsoon season in 2015. Whereas maximum hardness was reported as S2 during post monsoon season 2014. Similarly in Vihar lake TH varied from 90 mg/L to 170 mg/L. S7 showed minimum hardness during post monsoon season in 2015. Whereas maximum hardness was reported at S7 during summer season 2015. Increase in hardness of lake water may be attributed to excess addition of calcium and magnesium salts due to immersion of Ganesh idol during Ganpati festival. Two-way analysis of variance (ANOVA) results for Powai Lake show that TH had a significant influence between seasons (F=52.356 P0.01) but an insignificant effect between sample stations (F= 2.368). Temperature, EC and TA all had a significantly positive connection with TH. While Vihar Lake's two-way ANOVA findings show that EC had a substantial impact on differences between sample stations as well as between seasons (F=61.100 P0.01) Only temperature revealed a positive association with TH (0.760).

Dissolved Oxygen (DO):

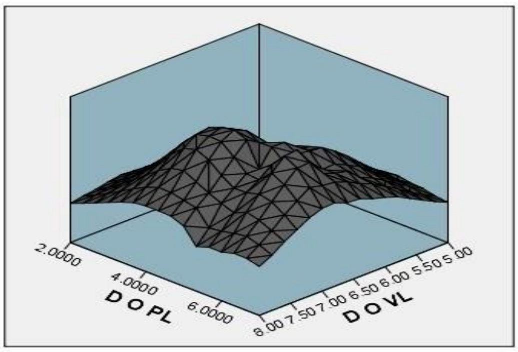


Fig 7: Variation of DO value

Since it affects almost all chemical and biological processes within water bodies, dissolved oxygen (DO) has been given a significant deal of relevance as a water quality indicator. The main sources of oxygen in an aquatic environment are the gaseous exchange of atmospheric oxygen across the air water interface and in situ production of oxygen via photosynthesis. It is a significant limnological parameter that indicates the degree of water quality and organic pollution load in the water body. The research area's dissolved oxygen concentration ranged from 2.90 mg/L to 7.67 mg/L.

In 2014's post-monsoon season, station S_4 recorded the lowest Do value. While the 2015 winter season saw the greatest DO value at S_7. Low Do readings in the post-monsoon period may have been caused by a decrease in fresh water discharge, which may have led to a drop in Do levels. The decomposition of organic matter, which occurs more quickly in warm conditions than in cold ones, is likely to be the cause of the oxygen loss during the summer months. The higher solubility of oxygen in water at cold temperatures may be the cause of the high value of dissolved oxygen throughout the winter. Results of the Powai lake two-way ANOVA show that DO had no significant difference between sample locations or seasons. The correlations between temperature, pH, and TA in Powai Lake were positive, while those between EC and TDS were negative. Contrarily, the results of a two-way ANOVA on data from Vihar Lake show that DO had a negligible influence between sampling stations (F=0.347) but a substantial effect between seasons (F=4.102 P0.05).

Biochemical Oxygen Demand (BOD):

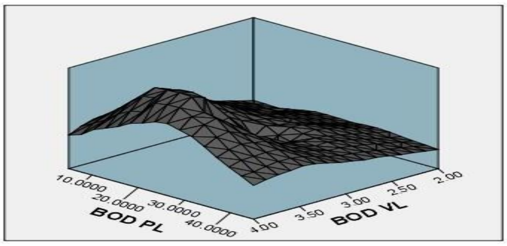


Fig 9: Variation of BOD value

A bioassay approach called the "biochemical oxygen demand test" measures the amounts of oxygen used during the controlled biological oxidation of organic waste. It is a rough estimate of how much oxygen is needed for the organic material in lake water to biochemically degrade into a stable inorganic form. According to statistics on BOD of Powai and Vihar lakes, BOD ranged from 2.40 mg/L to 43.25 mg/L at different sample locations throughout different seasons. Normally, BOD levels for unpolluted water are 2 mg/L or below. During the study period, it was noted that BOD concentrations were greater at all Powai Lake sampling stations than at all Vihar Lake sampling stations. The highest value was noted at station S_3 in the summer, and the lowest at S_5 in the winter of 2015. In general, BOD levels for Powai Lake were higher above the WHO (6 mg/L) requirements for drinking water quality. This was true for the entire sample site. (WHO 2004) The high BOD value during the summer may be attributed to the direct discharge of untreated domestic and industrial waste into the lake, the depletion of DO, the accelerated metabolic activities of various aerobic microorganisms in the decomposition of organic matter at high temperatures, and the high BOD value. Because of the high volume of fresh water showers and the diluting of dissolved organic matter by rain, the BOD value in the post-monsoon may have been low. Similar to Vihar Lake, Powai Lake's higher BOD and lower DO values can be linked to the discharge of residential sewage and agricultural runoff from the neighbourhood as well as to the microorganisms' high growth and activity levels. Results of a two-way ANOVA for Powai Lake show that BOD did not significantly differ between sample stations or seasons. BOD and pH had a strong positive association. Contrarily, BOD had a negligible influence between sampling stations but a substantial effect between seasons (F=39.916 P0.01), according to the results of a two-way ANOVA on data from Vihar Lake. With regard to pH (0.560), EC (0.480), TDS (0.481), and TA, BOD exhibited a positive connection (0.660).

Chemical Oxygen Demand (COD):

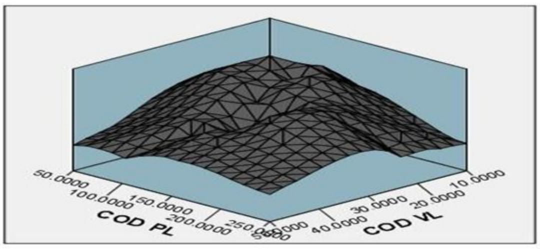


Fig 10: Variation of COD value

One of the most crucial aspects of evaluating the water quality is the chemical oxygen demand (COD) which is used to estimate the organic load of a body of water. It measures the amount of oxygen necessary for the oxidation of both organic and inorganic materials found in water. At S_7 in Vihar Lake, the COD was lowest during the winter of 2015 and highest during the pre-monsoon season of 2014. In 2014 Powai Lake's COD levels peaked at S_1 during the pre-monsoon and peaked at S3 during the winter. The elevated COD values across all Powai Lake monitoring sites point to possible water pollution caused by heavy chemical and organic loads. Powai Lake exceeded the WHO-recommended threshold for drinking water quality standards (10 mg/L) (WHO 2004). The COD readings, on the other hand, were determined to be within the limits set by the WHO and ISI standard for drinking water throughout the whole sample site of Vihar Lake in all seasons. The water at Powai Lake is unsafe for drinking since its COD is significantly higher than that of Vihar Lake. According to Powai Lake's two-way ANOVA results, COD had a significant influence between seasons (F=15.835 P0.01) but no significant effect between sample stations (F=1.695) (Table-4.26). Temperature, pH and TA all revealed a strong positive connection with COD (0.779, 0.477, and TA, respectively) (0.543). Similar findings from the Vihar Lake two-way ANOVA show that COD had a significant influence between seasons (F=51.550 P0.01) and an insignificant effect between sample stations21 (F=1.006). Only temperature and COD of Vihar Lake revealed a positive association (0.807).

Conclusion:

It's an attempt to assess seasonal variation of Physico-chemical parameters in Powai and Vihar Lakes" water in Mumbai and remedial measures to reduce pollution. The current study revealed that despite all of these efforts, Powai is currently threatened by organic pollution because of the rapid expansion of residential, commercial, and industrial. The lakes' current level of contamination and trophic condition were therefore indicated by the Physico-chemical and biological parameters. Powai Lake is primarily contaminated by sewage dumping, aquatic vegetation growth, degradation and blooms. Vihar Lake is suitable for public water supply because it is relatively less contaminated. Vihar Lake however has exceeded the water quality standard and needs coordinated efforts to maintain the quality. Future strategies could concentrate on enhancing Powai's water quality status and preserving Vihar's current quality. For the majority of the Physico-chemical metrics, Powai Lake displayed higher mean values. Powai Lake's size has shrunk in recent years which may have an impact on the lake's ability to absorb various contaminants. If suitable water quality management measures are not taken, the increased Powai Lake results indicate a future hazard of water quality deterioration. Moreover, more attention should be paid to water quality control in the case of Vihar Lake, a significant supply of drinking water. The current method can be applied to studies of water quality to comprehend the integrated water quality status for various bodies of water, particularly with regard to pollution. The physical and chemical characteristics of Powai and Vihar lakes provided critical information about how variations brought on by seasonal changes affect these characteristics.

Biological oxygen demand (BOD) and chemical oxygen demand (COD) are interconnected to each other. The ratio of BOD to COD says a lot about the water quality.

According to standards of WHO, ratio of BOD: COD for fresh water lies below 0.3 . The comparative analysis of Powai and Vihar lake water shows this phenomenon clearly.

The BOD and COD of Powai lake is many times higher than that of Vihar lake.

The study identified that Powai lake is badly affected by the effluent and untreated sewage from nearby areas.

Remedial Measures:

The following corrective methods can be used as part of a comprehensive approach to the management of Powai and Vihar lakes in order to ensure their protection, restoration, conservation, and long-term viability. At every level, all necessary precautions must be taken to avoid water contamination.

1. Watershed protection: A lake is a reflection of its catchment, therefore catchment management can be a very successful water body protection strategy. halt building in the catchment areas. Therefore, it is imperative to conserve these lakes and other water resources at all costs.

1. The management action plan may include:

a) Planning for development while protecting natural inlets.

b) Establishing suitable sewer lines as part of improvement while creating a settlement catchment to stop sewage contamination.

c) Appropriate storm water drains to allow rainwater to replenish lakes.

d) The growth of vegetation, the planting of saplings close to the lake, and the construction of landscaped gardens and walks surrounding the lake. in order to greatly reduce soil erosion and to collect precipitation for groundwater replenishment.

2. morphometry of lakes

a) To stop encroachment and land grabbing, the lake's limits should be properly marked at Full Tank Level (FTL) and developed with a ring road.

b) Building a border wall following a thorough survey to stop further encroachment. Powai and Vihar Lake are constantly patrolled and secured.

3. Lake upkeep: a) The relevant regulatory agency should allocate funds to maintain a water body (Municipalities and Corporation).b) The maintenance includes preventing the discharge of solid waste in order to lessen lake pollution and improve the water quality using various techniques including flap gates.

4. Environmental education centres should be established in order to maintain data and raise knowledge of ecology and the environment.

b) In the long run, teaching kids about water-related issues is a good way to achieve sustainable lake use.

c) It is important to encourage citizens and other stakeholders to actively contribute to detecting and fixing serious lake issues.

In reality Ethics plays vital role. These suggestions, solutions and remedies are possible only if there is inner motivation in an individual.

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Sustainable Development: Role of Education in Indian Context

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DOI- 10.5281/zenodo.7084583

Abstract:

Development is essential for every civilized society. Under the pretence of achieving development human beings are exploiting the natural resources to which they come across easily in the natural surrounding and are available to them free of cost. Sustainable development is that which assures satisfaction of the need of the present society without threatening the ability of the future generation to encounter their own needs of existence. Education is the most significant way which leads to increase the ratio of literacy and also helps to create awareness among all about the concerned issue. Environmental degradation is the serious threat to the human existence in the developing countries like India. To achieve the goal of developed Country it is crucial to have an education system which helps in spreading awareness about protection and improvement of environmental conditions, which can best be achieved by adopting the principles of sustainable development. Article 48-A and Article 51 A (g) of the Constitution of India impose duty on the State and Citizens, respectively to protect the environment. Indian judiciary has also given true effect to the intent of the Constitutional framework through its various judicial pronouncements. To achieve the goal of sustainable development, it needs to spread awareness about it among the citizens. People should realize to change their attitude towards environment and environmental resources and it can be done through the medium of education and education only.

Keywords: Environmental protection, Sustainable development, Education, Constitution, Judicial pronouncements

Rationale of the study:

"Knowledge and Education are key factors for sustained, inclusive and equitable economic growth and for the achievement of all the Millennium Development Goals."

UN General Assembly MDG Summit Draft resolution: Keeping the Promise

September 2010

Environment and sustainable development are interlinked concepts. These are the two sides of the same coin. If development is an integral part of the human life, pure environmental condition is essential is essential for human existence. For developing the condition of life use of resources available in the nature is inevitable. Since the birth of earth and birth of human being on the earth, human beings have been exploiting to the free resources in the environment. Nowadays, with the development of Industrialization and urbanization and modern Technology the concept of standard living is totally changed. To raise the level of living and for achieving the goal of development human being has started exploiting each and every natural resources which lead to cause degradation of environmental purity.No doubt that the resort to the natural resources is an integral for the overall development of mankind. But it doesn't mean that development should cause threat to the existence of future generation. So, it is expected from the present generation to maintain the balance between available natural resources and the degree of development so that the upcoming generation should get assurance about healthy and pure environment which is essential for the sustainability of mankind.

What is sustainable development?

Sustainable development is the predominant architype of the United Nations. The concept of sustainable development was described by the 1987 Brundtland Commission Report as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[1]Sustainable development is the principal of systematization or leading principle to meet the goal of human development with the sustainability of natural resources and environment system which makes available natural resources and ecosystem services upon which economy of a country and existence of society is depended. Sustainable development aims to achieve the condition of a society in which living style of mankind is such as to meet the needs of human being without compromising or threatening the integrity and stability of the natural environmental system.

Knowledge and Education are key factors for sustained, inclusive and equitable economic growth and for the achievement of all the Millennium Development Goals.

UN General Assembly MDG Summit Draft resolution: Keeping the Promise

September 2010

Principles of Sustainable Development

The following nine principles of sustainable development have been accepted as the contents and principles of "Sustainable Development" on the basis of Brundtland Report and other international documents prepared at Earth Summit at Rio de Janeiro-

[1] https://en.unesco.org>.uk

1. Intergenerational equity
2. Use and conservation of Natural Resources
3. Protection of Environment
4. The Precautionary Principle
5. The Polluter Pays principle
6. Obligation to Assist and Co-operate
7. Eradication of poverty
8. Financial Assistance to Developing Countries and
9. Public Trust principle[2]

International Scenario

- The Ramsar Convention on Wetlands of International Importance
- The Stockholm Declaration of 1972
- The Convention on the Prevention of Marine Pollution by Dumping of waste and other matters,1972
- The Convention on International Trade n Endangered Species of Flora and Fauna
- (CITES),1973
- The Economic Commission for Europe Convention on Long Range Transboundary Air Pollution, 1979
- The World Charter for Nature,1982
- United Nations Convention on the Law of the sea,1982
- The Vienna Convention for the Protection of Ozone Layer,1985
- The Hague Declaration on Environment,1989
- The Beijing Declaration of Developing Nations, 1991
- The Rio summit (Earth Summit),1992
- The Earth Summit+ five,1997
- The Kyoto Environmental Summit,1997
- The Johannesburg Summit on Sustainable Development,2002

Above are the measures initiated at the international level to protect and preserve the Environment and environmental sustainability. The followings are the proclamation of the United Nations Conference on the Human Environment which met at Stockholm that:

Principle 1-Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being and he bears a solemn responsibility to protect and improve the environment for the present and future generations.

Principle 2-The Natural resources of the earth, including the air, water, land, flora and Fauna and especially representative samples of natural ecosystems must be safeguarded for the present and future generations through the careful planning or management.

Principle 19-Education in environmental matters for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving environment in future human dimensions.[3]

World Summit on Sustainable Development (WSSD)

The Johannesburg Declaration on Sustainable Development,2002 having met in Johannesburg, South Africa reaffirmed their commitment to sustainable development, some among that are:

We reaffirm our pledge to place particular focus on, and give priority attention to, the fight against the world-wide conditions that pose severe threats to the sustainable development of our people…..

We recognise the reality that global society has the means and is endowed with the resources to address the challenges of poverty eradication and sustainable development confronting all humanity.[4]

Indian Scenario

In pre-independence period the laws related to environment protection were mostly related with different types of pollution and with wild life protection such as the Shore Nuisances (Bombay and Kolaba) Act, 1853, The Wild Birds and Animal Protection Act, 1912, The Bengal Smoke Nuisance Act, 1905.[5]

After independence first environment-related policy of India came around in 1972 i. e. after the First United nations Conference on Human Environment(UNCHE). The policy first time focussed on global environment and needs of development. In the same year The National Council for Environment Policy and planning was set up. In the year 1985, The Council later on transformed into the Ministry of environment and Forest (MOEF) and in 2014 captivated climate change within its ambit. During the period of 1970 to 1980 the Central Government has taken significant initiative and enacted various laws and acts for the protection of environment such as the Wild Life (Protection) Act, 1972, The Water(Prevention and Control of Pollution) Act, 1974, The Forest (Conservation) Act, 1980, Air Prevention and Control of Pollution) Act, 1981etc.

The most significant legislative initiative for protecting and conserving environment taken by the Indian Government was in the form of The Environment (Protection) Act,1986. The National Environment Appellate Authority Act, 1997 is another landmark legislative step taken by the government. The Biological Diversity Act,2002 was

[2] Environmental law, Dr.H.N. Tiwari, Allahabad Law

[3] Dr. Tiwari H.N., Environmental Law, (2015) Allahabad Law agency, law publishers Faridabad(Haryana)

[4] ibid

[5] indiankanoon.org>doc

enacted to protect and preserve the biological diversity in India. The Indian Government has also framed some policies such as the national Environment Policy of 2006, the National Conservation Strategy and the Policy Statement on Environment and Development of 1996, the National Forest Policy,1988.Significant initiatives have been taken over the last few years to enable India's sustainable development. The Government introduced a target of 175 giga watts of renewable energy capacity to be achieved by 2022and the country crossed the landmark of 100 gw of wind, solar and biomass capacity in August 2020.[6]

Judicial Trends in India on Sustainable Development

The judiciary of India has played a vital role in maintaining sustainable development and in encouraging public and private sector industrialization to give least opportunities to have irreparable damages to the natural environment and environmental resources which is necessary for maintaining flora and fauna. Indian Legislature has enacted number of laws to protect the environment and Supreme Court and High Courts in India are playing a pivotal role in giving true effect to the intent of the legislature and to develop the concept of sustainable development.

In **Subhash Kumar vs. State of Bihar**[7]the Supreme Court (SC) has widened the scope of Article 21 of the Constitution of India and interpreted it to include right to wholesome environment in the sphere of right to life.

In **Vellore Citizen Welfare Forum vs. Union of India &others**[8] the SC has held that the precautionary principle and polluter pays principle are part of the environmental law of the country.

In **M.C. Mehta vs. Union of India & others**[9] **known as Calcutta Tanneries Case,** in the facts and circumstances of the case, the SC while reaffirming that, one who pollutes the Environment must pay to reverse the damages caused by his acts.[10]

In **A. P. Pollution Control Board vs. prof. M.V. Nayudu (Retd) & others**[11] Hon'ble SC has held that the principle of precaution involves the anticipation of environmental harm and taking measures to avoid it or to choose the least environmentally harmful activity.[12]

In **Narmada Bachao Andolan etc. vs. Union of India & others**[13]the Hon'ble Apex Court has held that the sustainable development means what type or extent of development can take place which can be sustained by nature/ecology with or without mitigation.[14]

Education Policy, Environmental Awareness and sustainable development

"Education is the most powerful weapon you can use to change the world."

Nelson Mandela

What is Education?

According to the dictionary meaning 'education is the process of receiving or giving systematic instruction, especially at a school or university'. Thus, education is a two-way process which compasses teaching and learning within its ambit with the objective of imparting and acquiring knowledge, skills, values, morals and also life skills such as personality development etc. education is the most effective means of transforming cultural heritage and thinking from generation to generation.

Education for sustainable development and Education Policy in India

Education plays a significant role in imparting the importance of sustainable development from generation to generation. Education for sustainable development enables the learning person to take reasoned decisions and appropriate steps towards the protection and preservation of environment and to create a just and favourable social environment for upcoming generation. Since, the medieval of 1980 the endeavours have been taken by the government of India to include environmental education in the regular education system at all the levels. As per the directions issued by the Honourable Supreme Court of India, in the year 1991 environmental education should be included in the syllabus as a compulsory subject at all the offered courses. It has also issued further directions to NCERT to draft a model syllabus for standard I to XII.

India's National Education Policy (NEP2020), the first education policy of the 21st century aiming to transform India's education system is timely in its release and response to the global goals and momentum on SDG4. The NEP is expected to put India on track to attend SDG4 of the 2030 agenda for sustainable development by offering inclusive and equitable education and assuring lifelong learning opportunities for everyone. NEP acknowledges that achieving SDG4 will require the entire education system to be reconfigured to achieve all critical targets and SDGs.[15]

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[6] Ciiblog.in/indias-sustainable-development-framework

[7] AIR1991SC420/1991(1)SCC 598

[8] Air 1996 SC 2715

[9] (1977) 2 SCC 411 (430 to 433)

[10] Dr. Swamy N. Maheshwara, Textbook on Environmental Law,2018, Asia Law House, Hyderabad

[11] AIR 1999 SC 812

[12] Supra 9

[13] AIR 2000 SC 3751

[14] Supra 9

[15] Frompolicycircle.org-d

Effect of Education on the Plans for Sustainable Development

- By taking education people become literate. Literacy contributes in developing the logical and reasonable thinking capacity in the human beings. For the country with high literacy rate and skilled citizens, it becomes easier to implement any policy decision with less efforts and in a very short period of time.
- Education about environment awareness helps the citizen to take qualitative decision in carrying their activities with keeping in mind the less degradation of available natural resources and the Goal of Sustainable development.
- Education also plays a crucial role in improving the living standard of human being. Imparting education on sustainable development develops the sense of enhancing quality of life considering the economic and social well-being of future generation also. This would best be termed as the true effect of the ESD and a step towards achieving the SDG.

Environmental Awareness and sustainable Development

Environmental awareness is proved to be important from various points.

In India environmental awareness gained importance since 1970s after the UN sponsored conference on environment in Stockholm(1972). Indian Government took many environments friendly activities. Ministry of environment and forest was established and laws were enacted on environment in 1986.[16]

Education plays a very significant role in the life of every human being. Education is the paramount steps towards creating awareness among people about the protection and improvement of the environment. Environmental education an essential factor for creating awareness that leads to the awareness about the need of sustainable development. In todays, era of urbanization and industrialization the protection and improvement of the environment is of the most concern. The old concept of degradation of environment is an essential for achieving the development of Nation, is having no place, today as the solution lies in the new idea of "sustainable development". Directive principles of the Constitution of India has casted some duties on the State for the protection and preservation of the rights of its citizens. Article 48-A speaks about the responsibility of the State towards the protection of environment. It reads as- "The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country. According to the Article 51A (g) it is the fundamental duty of every citizen to protect the environment. It says that, "It shall be the duty of every citizen of India to protect and improve the natural environment, including forests, lakes, rivers and wildlife and to have compassion for living creatures."

Indian Judiciary had also played a vital role in spreading environmental awareness. It has emphasized on providing education on environmental awareness and sustainable development and spreading literacy among people about the importance of protection and improvement of environment. In the case of M.C. Mehata vs. Union of India[17] the Supreme Court of India has observed: "For the human conduct to be under the prescription of law there must be appropriate awareness about what the Law requires. This should be possible only when steps are taken in the adequate measure to make people aware of the indispensable necessity of their conduct being oriented following the requirements of Law." Thus, India is taking every cautious step to create environmental awareness among the people and to imbibe the significance of the concept of sustainable development.

Conclusion:

Education is a key factor in the development of Nation. Education for sustainable development is indeed essential for creating a clear vision among people about the sustainable future of the upcoming generation. It helps to foster critical thinking among the teachers and learners for taking steps towards the sustainable development i.e. without compromising the need and wants of the future generations. Sustainable development can be achieved if the natural resources are accessed in a judicious way. Education is the only media that can proved to be the best way of eradicating illiteracy about environmental protection and improvement.

Suggestions:

After doing the conceptual study of the above subject through the medium of this research paper the research scholar would like to put forth the following suggestions:

The principle of Sustainable Development is an unavoidable concept to be accepted by the every developing as well as developed country. Teaching and learning platform need to be prepared with the adequate facilities.

More emphasis to be given on including the subjects regarding environment consciousness, in the curriculum at all educational level including Higher education system. Training programmes, workshops need to be arranged for creating awareness through education among all at the grass root level.

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[17] AIR 1992 Sc 382read at https://indiakanoon.org

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Nature and Incidents of a Gift in Indian Law

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DOI- 10.5281/zenodo.7084593

Introduction

Gift defined as a Gift is the transfer of certain existing movable or immovable property made voluntary and without consideration, by one person, called the donor, to another, called the done, and accepted by or on behalf of the done. Such acceptance must be made during the lifetime of the donor and while he is still capable of giving. If the done dies before acceptance, the gift is void.

Absence of consideration:
The essential element in a gift is the absence of consideration. A transfer our of natural love and affection is a gift, for consideration excludes natural love and affection.

Necessity of acceptance by done :
Acceptance by the done is necessary to complete the gift. Such acceptance is to made during the lifetime of the donor and while he is still capable of giving. If the done dies before acceptance the gift is void. Acceptance need not be express and may be implied from conduct. If an instrument is on the face of it a testamentary character, the mere circumstance that the testator calls it irrevocable does not alter its quality.

Possession of Gift Deed :
Limitation Act, 1963, Art. 65 – Halsbury Laws of England. Acceptance of gift must be made during life-time of donor and while he is still capable of giving. Acceptance of gift by done is to be presumed until his dissent is signified, even though he is not aware of gift. Debatable question as to whether a donor can be permitted to take the plea of adverse possession against done. Even if such plea is available, it has to be specifically pleaded and established to the satisfaction of Court. Suit for declaration that gift deed executed by plaintiff in favour of defendant, his foster sister, was not acted upon and for consequential injunction. Plea of defendant that the very fact that original gift deed was delivered to her and continued to be in her possession should be treated as acceptance of gift by her and unless it is sought to be annulled on any ground, relief cannot be granted to plaintiff. Held that there was valid conveyance of suit schedule property in favour of defendant under Ex. A-I/ B-5. Without seeking cancelation of gift deed, plaintiff could not have raised plea of adverse possession. Plaintiff did not plead any other ground of having acquired right, title or interest over suit schedule property .

Contractual incompetency of done : When the done is incompetent to contract the acceptance may be by or on behalf of the donee. After attaining contractual competency, the done may repudiate the acceptance. A gift may be made to a child in utero and accepted on its behalf. Where the done is not yet in existence, a gift can be made only through the medium of a trust or there must be a gift to a beneficiary in the interim.

Subsequent conduct : Once a gift is complete, same cannot be rescinded. Subsequent conduct of a done cannot be a ground for rescission of a valid gift.

Family settlement Commercial settlement : In Hari Shankar Sungamma v. Gaur Hari Sungama it was held that family settlement to be treated on different footing when compared to formal commercial settlement.

Failure to accept by one of joint donees : A gift of a thing to two or more donees of whom one does not accept it, is void as to the interest which he would have taken had he accepted.

Relinquishment : A document purporting to be a relinquishment mat operate as a gift. If so registration is necessary ?

Appointment under Power : An appointment in pursuance of a power may involve a transfer of property. It cannot, however, be described as a gift and so need not be effected by a registered instrument.

Formmalities : A gift of a immovable property must be effected by a registered instrument, signed by or on behalf of the donor, and attested by a least two witnesses. In the case of movable property, delivery to the done is sufficient to complete the gift. A mere credit entry in the accounts of a person, however, does not operate as a valid gift.

Gift when complete : The gift becomes effective on acceptance by the done though it can be enforced only on registration. So it cannot be revoked after acceptance by the donee although by the time of revocation, registration had not been effected. On the other hand, it can at any time be revoked until acceptance by the done, though the instrument of gift has been registered.

Requirement of registration : Registration Act, 1908, Sec. 17 (1)(b) and Hindu Adoptions and Maintenance Act, 1956, Sec. 3 – Transfer of property in favour of daughter by way of Pasupu Kumkuma – Gift- Document whether requires registration. Decision of the Supreme Court in AIR 1964 SC 510 and the Full Bench Decision of this court in 2001 (5) ALT 130 considered. Question whether the FB decision is binding in view of the

Supreme Court decision. Civil Revision Petition referred into for decision by an appropriate Bench.

Family settlement, partition, compromise of disputed claims. : Relying on AIR 1967 SC 1595 in Zoroastrian Co-op Housing Society Limited v. District Register, Co-op Societies , it was held that partial restraints imposed by family settlement, partition, compromise of disputed claims, on alienation would be valid.

Gift and will : Gift and will do not stand at par as far as proof of execution of such documents is concerned.

Pasupu Kunkuma : Transfer of Property by way of pasupu kunkuma requires registration.

Execution of registered gift : Execution of registered gift deed by donor purporting to donate shores in various companies standing in her name. donor also executing several blank transfer forms to enable done to obtain transfer of shares and share certificates in his own name. Death of donor to obtain transfer of shares in the registers of the companies concerned.

Mental capacity of donor, a question of fact : in Nur Bhanu v Abdul Amin Bhuinya, it was held that in relation to execution of gift deed, the donor's mental capacity at the time of execution being a question of fact, such findings not be interfered with in second appeal.

Surrender or forfeiture of an interest : Gift Tax Act, 1958, Sec. 2(xii) and 4 and Registration Act, 1908, Ext. 17 – A transfer by reason of Section 17 of the Registration Act can only be by way of by clause (c) of Section 4 of the Gift Tax Act or vesting of any property in another person as contemplated by clause (d) of that Section in respect of immovable property would attract the provisions of Section 17 of the Registration Act. What is important is that there has to be a valid transfer of property and whether that transfer amounts to a gift or not would bring into the question of the application of the provisions of the Gift Tax Act. Appeal was allowed accordingly.

Deemed gift : Levy of tax : In M/s Khode Eswarasa & Sons vs. Commissioner of Gift Tax, the Tribunal as well as the High Court clearly fell into an error in upholding the levy of gift tax on the capitalized value of the gift taking the gift as for five years and treating as irrelevant the clause providing for termination at six months notice and also taking into consideration the fact that the agreement was not cancelled within the period of five years. In our view, that is of no consequence. The language of Rule 11 (1) is clear. It does not admit of any no two interpretations.

Time of Registration : Registration may be effected even after the donor's death. If acceptance took place in his life-time.

Mahomedan Law : Under the Mahomedan law delivery of possession is essential to the validity of a gift.

Acceptance by the Donee : Acceptance by the done may be completed although the need of gift is not delivered to the done and gifted property continues to be in the donor's possession.

Effect of unregistered Gift : If the donor fails to execute a registered gift deed, but allow the done to enter into possession of the gifted property, the done acquires a perfect title as against the donor's heirs by remaining in possession for twelve years. An unregistered deed of gift does not by itself create title in favour of the donee.

Power of revocation : Gift – Once a gift is accepted and in the absence of power of revocation, the gift deed cannot be revoked. The physical delivery of the property gifted is not contemplated. What is contemplated is the acceptance by done or on behalf of the donee.

Validity of Gift : Suit for declaration that the deed of gift of suit land was void and illegal –Gift made orally. Courts below held it to be valid. Question – Whether deed of gift was void ab initio. A deed of gift of immovable property must be registered one and must be signed by two attesting witnesses. Circumstances indicated. Deed of gift ipso facto a null and void document.

Conclusion

The gift deed of property in India is just another legal document containing the express details of such transfer of property though gift. In the case of done being a minor, a natural guardian can accept a gift on his behalf. The guardian acts as a manager of the gifted property.

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'Journal of Research & Development'
A Multidisciplinary International Level Referred and Peer Reviewed Journal,
Impact Factor-7.265, ISSN: 2230-9578, August 2022, Volume-14 Issue-11

Prediction of Diabetes Using Data Science Technique

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Abstract

Diabetes is a chronic (long-lasting) health condition that affects how your body turns food into energy. Most of the food you eat is broken down into sugar (also called glucose) and released into your bloodstream. When your blood sugar goes up, it signals your pancreas to release insulin. Diabetes should not be ignored if ignored then diabetes may cause some major issues in a person like heart related problems, kidney problem, blood pressure, eye damage and it can also effect the other organs of human body. So Early prediction of diabetes using various efficient machine learning methods can helps people to prevent the diabetes and to get the treatment earlier. Nowadays machine learning is applied to healthcare system where there is a chance of predicting the disease early. The main necessity of Artificial intelligence is data. In this we have proposed a diabetes prediction model for better classification of diabetes which includes few external factors responsible for diabetes along with regular factors loke glucose, age and BMI, etc. The past dataset is collected and that dataset is used to build a machine learning model. The necessary pre-processing techniques are applied like univariate analysis and bivariate analysis are implemented. The data is visualized for better understanding of the features and based on that a classification model is built by using machine learning algorithm like Decision tree, Support vector, Random Forest, Support vector etc and this comparison of algorithms are done based on their performance metrics like accuracy, F1 score recall etc. we explore various machine learning algorithms which will help in early prediction of this disease.

Introduction

Diabetes is noxious disease in the world. Diabetes caused because of obesity or high blood glucose level, and so forth. It affects the hormone insulin, resulting in abnormal metabolism of crabs and improves level of sugar in the blood. Diabetes occurs when body does not make enough insulin. According to (WHO) World Health Organization about 422 million people suffering from diabetes particularly from low- or idle-income countries. And this couldbe increased to 490 billion up to the year of 2030. However, prevalence of diabetes is found among various Countries like Canada, China, and India etc.Population of India is now more than 100 million so the actual number of diabetics in India is 40 million. Diabetes is major cause of death in the world.Diabetes is a disease which reduces the body's capability to produce insulin. In other words, the body can not retaliate to the hormone insulin production. This results in anomalous metabolism of carbohydrates and increased blood glucose levels. Early prediction of disease like diabetes can be controlled andsave the human life. The most explored area is the healthcare system which uses modern computing techniques is in healthcare research. As mentioned above the researchers in the related fields are already working with the healthcare organization to come up with more technology ready systems. Multiple opportunities for healthcare are created because machine learning models have potential for advanced predictive analytics. There are already existing models in machine learning which can predict the chronic illness like heart disorder, infections and intestinal diseases. For this we apply various Machine Learning classification and ensemble Techniques to predict diabetes. Machine Learning Is a method that is used to train computers or machines explicitly. Various Machine Learning Techniques provide efficient result to collect Knowledge by building various classification and ensemble models from collected dataset. Such collected data can be useful to predict diabetes. Various techniques of Machine Learning can capable to do prediction, however it's tough to choose best Technique. Thus, for this purpose we apply popular classification and ensemble methods on dataset for prediction.

Data Science:

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data, and apply knowledge and actionable insights from data across a broad range of application domains. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name for computer science. In 1996, the International Federation of Classification Societies became the first conference to specifically feature data science as a topic. However, the definition was still influx.

The term "data science" was first coined in 2008 by D.J. Patil, and Jeff Hammerbacher, the pioneer leads of data and analytics efforts at LinkedIn and Facebook. In less than a decade, it has become one of the hottest and most trending professions in the market.

Machine learning:

Machine learning is to predict the future from past data. Machine learning(ML) is a type of artificial intelligence (AI) that provides computers with the ability to learn without being explicitly programmed. Machine learning focuses on the development of Computer Programs that can change when exposed to newdata and the basics of Machine Learning, implementation of a simple machine learning algorithm using python. Process of training and prediction involves useof specialized algorithms. It feed the training data to an algorithm, and the algorithm uses this training data to give predictions on a new test data. Machine learning can be roughly separated in to three categories. There are supervised learning, unsupervised learning and reinforcement learning. Supervised learningprogram is both given the input data and the corresponding labelling to learn data has to be labelled by a human being beforehand. Unsupervised learning is no labels. It provided to the learning algorithm. This algorithm has to figure out the clustering of the input data. Finally, Reinforcement learning dynamically interacts with its environment and it receives positive or negative feedback to improve its performance.

Analyses Trains

Proposed System

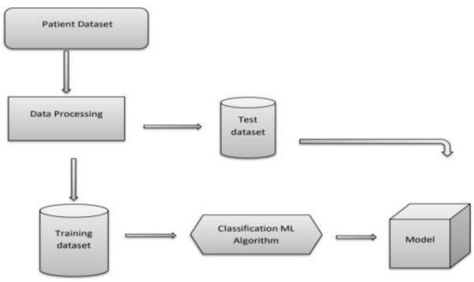
The proposed method is to build a machine learning model for predicting Diabetes. The process carries from data collection where the past data related to Diabetes are collected. Data mining is a commonly used technique for processing enormous data in the healthcare domain. The Diabetes if found before proper treatment can save lives. Machine learning is now applied and mostly used in health care where it reduces the manual effort and better model makes error lesswhich leads in saving the life. The data analysis is done on the dataset proper variable identification done that is both the dependent variables and independent variablesare found. Then proper machine learning algorithm are applied on the dataset where the pattern of data is learnt. After applying different algorithms, a better algorithm is used for the prediction of outcome.

Advantages:

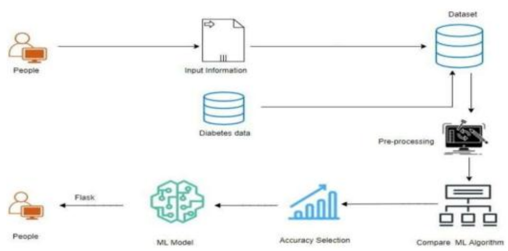
1. Chance of error rate is very less.
2. Time and Money saving.
3. Accuracy will be more as we are comparing with 4-5 types of algorithms

Architecture of proposed model

Environmental Requirements:



1. Software Requirements: Operating System
2. Windows Tool:Anaconda with Jupyter Notebook 2.
   Hardware requirements: Processor: Pentium IV/III
   Hard disk: minimum 80 GB RAM: minimum 2 GB



System Architecture:

False Positives (FP): A person who will pay predicted as defaulter. When actual class is no and predicted class is yes. E.g., if actual class says this passenger did not survive but predicted class tells you that this passenger will survive.

False Negatives (FN): A person who default predicted as payer. When actual class is yes but predicted class in no. E.g., if actual class value indicates that this passenger survived and predicted class tells you that passenger will die

True Positives (TP): A person who will not pay predicted as defaulter. These are the correctly predicted positive values which means that the value of actual classis yes and the value of predicted class is also yes. E.g., if actual class value indicates that this passenger survived and predicted class tells you the same thing.

True Negatives (TN): A person who default predicted as payer. These are the correctly predicted negative values which means that the value of actual class is no and value of predicted class is also no. E.g., if actual class says this passenger did not survive and predicted class tells you the same thing.

Comparing Algorithm with prediction in the form of best accuracy result:

It is important to compare the performance of multiple different machine learning algorithms consistently and it will discover to create a test harness to compare multiple different machine learning algorithms in Python with scikit- learn. It can use this test harness as a template on your own machine learning problems and add more and different algorithms to compare. Each model will have different performance characteristics. Using resampling methods like cross validation, you can get an estimate for how accurate each model may be on unseen data. It needs to be able to use these estimates to choose one or two best models from the suite of models that you have created. When have a new dataset, it is a good idea to visualize the data using different techniques in order to look at the data from different perspectives. The same idea applies to model selection. You should use a number of different ways of looking at the estimated accuracy of your machine learning algorithms in order to choose the one or two to finalize. In the next section you will discover exactly how you can do that in Python with scikit- learn. The key to a fair comparison of machine learning algorithms is ensuring that each algorithm is evaluated in the same way on the same data and it can achieve this

Precision = TP / (TP + FP)

by forcing each algorithm to be evaluated on a consistent test harness.

In the example below 4 different algorithms are compared:

- Logistic Regression
- Decision Tree
- Random Forest
- Support Vector Machine

The K-fold cross validation procedure is used to evaluate each algorithm, importantly configured with the same random seed to ensure that the same splits to the training data are performed and that each algorithm is evaluated in precisely the same way. Before that comparing algorithm, building a Machine Learning Model using install Scikit-Learn libraries. In this library package have to done pre-processing, linear model with logistic regression method, cross validating by K Fold method, ensemble with random forest method and tree with decision tree classifier. Additionally, splitting the train set and test set. To predicting the result by comparing accuracy.

Prediction result by accuracy: Logistic regression algorithm also uses a linear equation with independent predictors to predict a value. The predicted value can be anywhere between negative infinity to positive infinity. It needs the output of the algorithm to be classified variable data.

True Positive Rate (TPR) = TP/ (TP + FN) False

Positive rate (FPR) = FP / (FP + TN)

Accuracy: The Proportion of the total number of predictions that is correct otherwise overall how often the model predicts correctly defaulters and non-defaulters.

Accuracy calculation= (TP + TN) / (TP + TN + FP
+ FN)

Accuracy is the most intuitive performance measure and it is simply a ratio of correctly predicted observation to the total observations. One may think that, if we have high accuracy then our model is best. Yes, accuracy is a great measure but only when you have symmetric datasets where values of false positive and false negatives are almost same.

Precision: Precision is the ratio of correctly predicted positive observations to the total predicted positive observations. The question that this metric answer is of all passengers that labelled as survived, how many actually survived? High precision relates to the low false positive rate. We have got 0.788 precision which is pretty good.

Recall: Recall (Sensitivity) - Recall is the ratio of correctly predicted positive observations to the all observations in actual class - yes.

Recall = TP / (TP + FN) F1

Score: It is the weighted average of Precision and Recall. Therefore, this score takes both false positives and false negatives into account.

General Formula:

F- Measure = 2TP / (2TP + FP + FN)

F1-Score Formula:

F1 Score = 2*(Recall * Precision) / (Recall + Precision)

Conclusion

• This application can help to find the human diabetes problems.

• The best accuracy o score is will be found out. • Using these techniques there is less chance of error rate.

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An Iot-Based Intelligent System for Real-Time Parking Monitoring and Automatic Billing

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DOI- 10.5281/zenodo.7098508

Abstract
This paper describes an internet of things (IOT)-based parking sensing system that deploys a robust outdoor vehicle localization and recognition methodologies. Although, parking occupancy monitoring systems have made a considerable progress, smart parking payment is rarely studied in smart parking research. This paper proposes a new low-cost sensor system allowing real-time parking occupancy monitoring along with parking payment without requiring any user/driver interaction. The proposed on-board vehicle transceiver device (VTD) sensor, will be deployed without having to install new components on each parking lot. It has benefits in terms of detection and payment reliability, and reduced expense by reducing the system complexity, infrastructure investment, and battery replacement expense. A robust vehicle recognition and parking occupancy monitoring is achieved using two-fold sensing approach. It is a sequence of motion detector and global navigation satellite system (GNSS) sensing techniques. The sensor is triggered when the vehicle is within a parking area thanks to a proposed radio frequency (RF) wake-up technique's consequence, the energy consumption is optimized and the VTD has a power saving scheme with a power consumption slow as 20 μW at 3 V supply. The VTD can be seamlessly integrated into the intelligent vehicular ad-hoc networks (in VANETs).

Introduction

Today, the parking industry is being transformed by new technologies that are allowing cities to reduce rates of congestion significantly. Sensor networks that sense vehicle occupancy are providing the basic intelligence behind smart parking systems. Thanks to the Smart Parking technology, it is now possible to know in real-time the location of free parking spaces and to help drivers to get to their ultimate destination. A variety type of vehicle detectors has been used in parking information acquisition. These vehicle detectors mainly include the inductive loop, acoustic sensor, infrared sensor, or ultrasonic sensor. System using video camera sensor technologies have been proposed to collect the information in vehicle parking field. However, a video camera sensor is vulnerable to bad weather and night time operation. Furthermore, it is expensive, and can generate a large amount of data that can be difficult to transmit in a wireless network. The magneto-resistive based detection systems combined with a wireless area network are the most popular technique due to their high accuracy. Yet, this type of sensor is facing different issues, i.e., it can be delivered by electromagnetic interference, which affects the accuracy, the reading from sensor needs to be collected constantly which will result in wearing out the battery. To extend the battery lifetime and increase the vehicle detection accuracy, a parking sensor system has been proposed. When a user occupies a parking space designated with an individual ID, he enters this ID into a parking meter or via a smart phone mobile app., and pays the parking fees. The database processes the received data and changes the status of the parking space with its ID from unpaid to paid. These data are used as information on the occupation of a parking space. In this paper, we propose a smart sensor system allowing outdoor parking monitoring and payment without requiring any user/driver interaction. It will be deployed without having to install new components on each parking lot. The proposed sensor has benefits in terms of detection and payment reliability, and reduced expense by reducing the system complexity and installation, and extending batteries lifetime through the reduction of the system power consumption.

Background:

A variety type of vehicle detectors has been used in parking information acquisition. These vehicle detectors mainly include the inductive loop, acoustic sensor, infrared sensor, or ultrasonic sensor. System using video camera sensor technologies have been proposed to collect the information in vehicle parking field. However, a video camera sensor is vulnerable to bad weather and night time operation. Furthermore, it is expensive, and can generate a large amount of data that can be difficult to transmit in a wireless network. The magneto-resistive based detection systems combined with a wireless area network are the most popular technique due to their high accuracy. Yet, this type of sensor is facing different issues, i.e., it can be delivered by electromagnetic interference, which affects the accuracy, the reading from sensor needs to be collected constantly which will result in wearing out the battery. Existing sensors, such as ground based parking sensors costs up to $200 per parking lot. As consequence, smart-parking technology using wireless sensors for outdoor parking is costly due to the large number of sensors units required to cover the entire parking lot. Although, parking occupancy monitoring systems have made a significant progress, smart parking payment is rarely studied in smart parking research. Yet, there are companies working on the patents of parking systems for payments. A first approach consists in using a camera or an RFID transceiver for vehicle detection and identification. A limitation of this solution lies in that the system is complex and its implementation is expensive when a detection device is installed on each parking lot. Furthermore, when only RFID transceiver is used for vehicle detection and identification, the system can be delivered by electromagnetic interference, which affects the accuracy. Moreover, this system is designed to detect a vehicle when entering a parking and seek payment, whereas information on vacant parking lots is not provided. A technique for monitoring vehicle parking using one camera to record the entrance of a vehicle and a second camera to record the vehicle leaving the parking has been proposed.

Objectives:

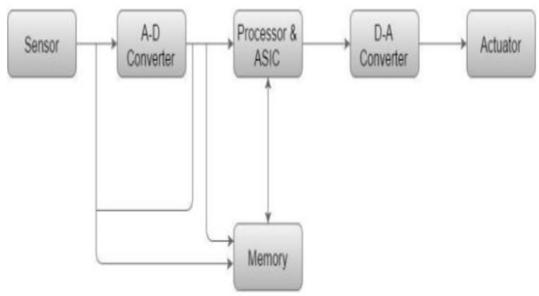
• The main objective of this project is to provide easy parking system to minimize the traffic congestion in the parking areas.

Detection and giving information of slots where the parking can be done using IOT.

To provide smart and easy parking payment at the exit without using human intelligence. So, in the end, parking the vehicle and generation of bill can be done in a very short period.

Embedded System:

As its name suggests, Embedded means



something that is attached to another thing. An embedded system can be thought of as a computer hardware system having software embedded in it. An embedded system can be an independent system or it can be a part of a large system. An embedded system is a microcontroller or microprocessor-based system which is designed to perform a specific task. For example, a fire alarm is an embedded smoke.

An embedded system has three components:

• It has hardware.

• It has application software.

Basic structure of Embedded System:

Proposed System

• The ticket machine prints a ticket that the driver displays in the vehicle. When the time is about to expire, the driver can extend his stay by inserting coins or a personal card at the parking meter. • In addition, pay-by-mobile phone and real time parking reservation systems and smart phone applications are used for parking lot reservation and payment.

Block Diagram

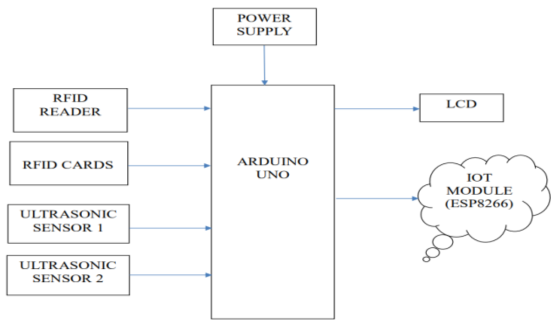
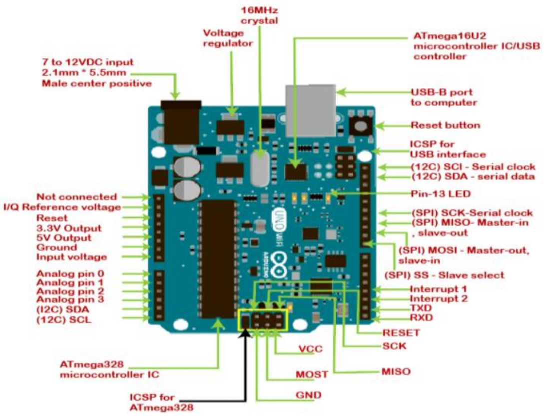


FIG.3. Block diagram

Working:

In this system we are using ARDUNIO controller and different like sensors. Here we are using components like RFID reader, RFID cards, ultrasonic sensor, IOT module and LCD. In the active RFID system, the reader sends signal to the tag using an antenna. The tag receives this information and resends this information along with the information in its memory. The reader receives this signal and transmits to the processor for further processing. RFID methods utilize radio waves to accomplish this. ... RFID tags contain an integrated circuit and antennas, which are used to transmit data to the RFID reader (also called an interrogator). The reader then converts the radio waves to a more usable form of data. Ultrasonic sensors emit short, high-frequency sound pulses at regular intervals. If they strike an object, then they are reflected back as echo signals to the sensor, which itself computes the distance to the target based on the time-span between emitting the signal and receiving the echo. IOT module give the live update on the parking slots of the cars. LCD will showcase all the details about parking slots.

Arduino UNO pinout



Parameters:

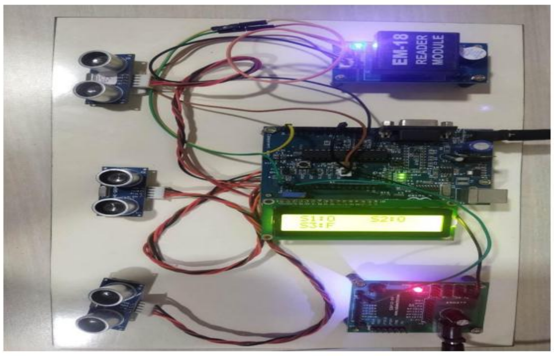
Categories	Items	Values
WiFi Paramters	WiFi Protocles	802.11 b/g/n
	Frequency Range	2.4GHz-2.5GHz (2400M-2483.5M)
Hardware Paramaters	Peripheral Bus	UART/HSPI/I2C/I2S/Ir Remote Contorl
		GPIO/PWM
	Operating Voltage	3.0~3.6V
	Operating Current	Average value: 80mA
	Operating Temperature Range	-40°~125°
	Ambient Temperature Range	Normal temperature
	Package Size	16mm*24mm*3mm
	External Interface	N/A
Software Parameters	Wi-Fi mode	station/softAP/SoftAP+station
	Security	WPA/WPA2
	Encryption	WEP/TKIP/AES
	Firmware Upgrade	UART Download / OTA (via network) / download and write firmware via host
	Ssoftware Development	Supports Cloud Server Development / SDK for custom firmware development
	Network Protocols	IPv4, TCP/UDP/HTTP/FTP
	User Configuration	AT Instruction Set, Cloud Server, Android/iOS App

APP Using:

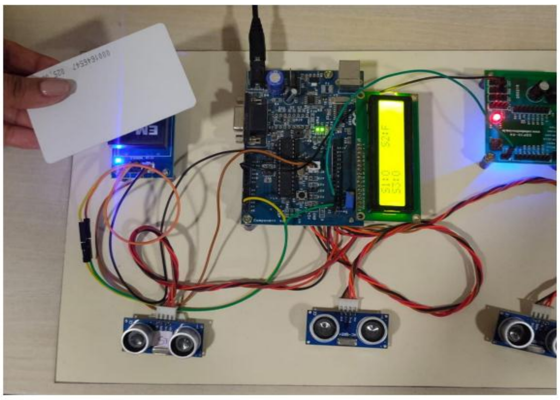
IOT is an open-source app for connecting an Android device to cloud such as Arduino and other devices. It has been tested extensively to work with some modules and should work for wide range of device. We are using in this project to connect our mobile given user's name and password and then login to the app then it will be shown like below.

Testing Result

The below figure shows the hardware setup of IOT based Real time parking monitoring and automatic billing. In addition to this, we are using an Arduino UNO controller and a few ultrasonic sensors in this system. Also, the others used here are RFID reader, RFID cards, and an IO T module and LCD.



The internal process is, in the active RFID system, the reader sends a signal when an RFID card is tapped on it using an antenna. Now, this reader receives this information and stores it, then reutilizes it. when the card is tapped again by the driver when leaving the parking slot. When the Arduino receives signals from the RFID reader, ultrasonic sensors come into the picture, which are placed in each slot. These ultrasonic sensors sense the information about the slots, whether they are free or occupied, and then send this information to the Arduino Uno. Now to display this information to the driver, the Arduino UNO again sends the information to the LCD connected to it. As we can observe, the Arduino Uno plays a vital role in this system.



If the slots are free (F) then it will show like above figure. Now the driver can choose a free slot and park his vehicle in that place. So, when the next car comes, the driver taps the RFID card, and the reader reads the card, then the whole process repeats. However, everyone cannot wait in the lot and check for the empty slot by tapping an RFID card, so we introduced an app for such cases. So, this app stores the data of the vacant and occupied slots, which are then pushed into the cloud by the Arduino. In the end, the driver can tap his RFID card to the reader again at the exit. And this reader shows the time his car has been parked and then generates a bill accordingly on the LCD

Advantages:

- Optimized parking.
- Reduced traffic in parking lot.
- Increased safety.
- Real-Time data and trend insight.
- Decreased management costs.

Applications:

- Passports
- Toll booth passes
- Hospitals
- Libraries

Conclusion

In this work, IOT based smart parking system has been proposed which integrates several physical devices to check the parking slot availability. It permits actual time parking tracking together with parking price without requiring any user/motive force interaction. Mobile app allows the user to locate and reserve a parking slot in online, navigation from entrance gate to available parking slot is also the proposed system reduces the driver's effort and time to search parking space. Prototype is built for single storage parking slot, but this model can be extended for multi storage parking space.

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