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Editorial

IMK in association with School of Distance Education, University of Kerala organized an International conference on Business Management and Allied Disciplines (ICBMAD22) in association with Maseno University, Kenya and Addis Ababa Science and Technology University, Ethiopia during 22-24th August 2022 through online mode. This conference assumes significance in the wake of the University of Kerala getting the coveted A++ grade from NAAC, Bengaluru with 3.67 CGPA. All the papers received were subjected to thorough peer review through the editorial board and also through the International and national advisory board members. Those selected were considered for the publication in this journal with two volumes during the period 2022. The articles have been written with innovative thoughts, an excellent inquiry process and also with the access to both secondary and primary data.

I am sure you will find the articles worth reading and your feedback is important for the improvement of the journal. It can be mailed to kscnair@keralauniversity.ac.in.

Thanking you

Dr.K.S.Chandrasekar

Chief Editor

AUTHOR GUIDELINES AND ETHICAL CONSIDERATIONS

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3. The authors must follow the pattern-Introduction-Methodology-Results and Discussion-Conclusion-References- while writing their papers.
4. The recommended length of a paper is 3000 to 5000 words inclusive of all tables, figures, notes and references.
5. All papers should be accompanied by an abstract (75 to 100 words) and 4-5 key words.
6. Papers should be prepared and submitted in text format (MS-Word) following U.K. spellings, using Times New Roman font of 12 size, and A4 format with 1.5 line spacing.
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A STUDY ON THE REVOLUTIONIZATION IN FINTECH AND ITS IMPACT ON THE FINANCIAL SECTOR

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ABSTRACT

"FinTech is a way for financial services organizations to align better their business and I.T." For organizations and people alike, FinTech has been developed to improve and automate traditional means of finance. According to RBI, "FinTech or financial technology that provides digital financial services is revolutionizing how financial services are provided and delivered. Digital technology, at its most fundamental level, offers speed - speed in processing information and speed in communication. All parties - regulators, established financial firms, and developing FinTech organizations – must understand the social benefits of new technology or its influence on customers. The way financial services are organized and financial goods are offered to change due to digital technologies".

Innovations impact FinTech, such as chatbots, artificial intelligence-based advice services, and mobile bank accounts. However, because many of these FinTech solutions are still in the early phases of development, it is impossible to predict how clients will embrace them. In the face of the continued boom in digitalization and the challenges posed by Big Tech to traditional banking, the emerging geography of FinTech is projected to remain grounded in a global network of financial centers into which new FinTech specializations will be incorporated. Large established technology businesses attempt to disrupt incumbents by introducing new products and technologies and offering a substantial dose of competition. It delves into blockchain applications in business, finance, and financial technology (including peer-to-peer lending, online lending, and Robo-advising). Many circumstances, including an innovative startup environment, a favorable market, growing smartphone and internet penetration levels, a young population with median age, and government-led initiatives to encourage business, make many nations ideal for a FinTech revolution. These factors indicate a positive shift toward FinTech, preparing the country for mainstream adoption. FinTech can significantly improve things, but it will likely cause significant regulatory challenges.

In the face of a fast-changing economic environment and cost-intensive regulatory requirements, traditional banking companies and financial service providers are undergoing a significant transformation: Digital Finance. The main objective of this research is to identify "The components (Cryptocurrencies and blockchain, new digital advisory and trading systems, artificial intelligence, peer-to-peer lending, equity crowdfunding, and mobile payment systems) of a financial infrastructure that enable these growing innovations across all innovation objects and markets engaged." This study examines the potential impact of FinTech on the financial industry, focusing on financial stability and service access.

Keywords– FinTech, Digitalization, Innovation, Cryptocurrency, Blockchain.

INTRODUCTION

In the growing economy, modernizing financial systems, igniting customers, and altering market behavior are all critical aspects of the current and developing economy. Changing the role of I.T. and its convergence, such as social computing, big data, and cloud computing, allows them to automate old business processes while offering exclusive new products and services. FinTech, according to Dapp (2014), "Does not often emerge from the traditional financial industry but rather from the technological sector. All digital forms of making financial resources available are referred to as digital finance" This study focuses on cross-disciplinary collaboration, namely the intersection of finance and technology—cryptocurrency and blockchain (Cryptocurrency is a virtual currency that uses encryption to

safeguard transactions. Cryptocurrencies use a decentralized mechanism to record transactions and issue new units rather than having a central issuing or regulating authority. Blockchain is a distributed database that is built up over time by a network of participants who all run the same software and are bound by the limits and rules imposed by the underlying program); new digital advising (Banks and insurance companies are interested in digital financial advice services also known as "Robo-advisory"), Peer-to-peer financing (P2P lending is a financial innovation that connects verified borrowers asking for unsecured personal loans with investors wanting higher returns on their investments), and Crowdfunding (Schwienbacher and Larralde (2010) define Crowdfunding as "An open call, essentially through the Internet, for the provision of financial resources either in the form of donation or in exchange for some form of reward and voting rights to support initiatives for specific purposes". These components of FinTech are hot themes. This research also stressed the need for FinTech collaboration in the modern era.

OBJECTIVE OF THE STUDY

- To identify the components of transformed financial infrastructure
- To analyze the impact of revolutionization on the financial sector

RESEARCH METHODOLOGY

The design used for this study was that of a descriptive research design that sought to examine, evaluate and assess revolutionization in FinTech and its impact on the financial sector. Data was collected for this research using secondary sources. Studies were conducted on existing literature, textbooks, related literature, articles, journals, and online resources.

REVIEW OF LITERATURE

Sanjiv R. Das (2019): The Future of FinTech

The burgeoning field of financial technology (FinTech) and the various financial concepts and technologies that underpin it was discussed in this article. FinTech is a disintermediation force, and disruptive technologies are its drivers. The researcher systematically identified and discussed ten critical areas in fintech. The Pitfalls of fintech were also assessed.

Kanya Purnamahatty Prawirasasra (2018): Financial Technology in Indonesia: Disruptive or Collaborative?

This study examined how Indonesia's financial sector has changed due to technology's rapid advancement and proliferation. This paradigm shift presents new difficulties for market participants in balancing the potential risks of innovation with its potential benefits. This research concluded that the development of financial technology in Indonesia would significantly positively affect the country's economy, helping to finance domestic demands and promoting the equal distribution of the population's well-being.

Thomas Philippon (2016): The FinTech Opportunity

This paper assessed the potential impact of FinTech on the finance industry, focusing on financial stability and access to services. The author opened by that, at first, that financial services remain surprisingly expensive, which explains the emergence of new entrants, then argued that the current regulatory approach is subject to significant political economy and coordination costs and therefore unlikely to deliver much structural change. FinTech, on the other hand, brings profound changes but is likely to create significant regulatory challenges.

Diego Valdeolmillos, Yeray Mezquita, Alfonso González-Briones & Et. Al (2019): Blockchain Technology: A Review of the Current Challenges of Crypto Currency

This article examined the issues that five of the most valuable cryptocurrencies confront. Furthermore, the blockchain technology that underpins them was concerned. As a result of the cryptocurrency market's meteoric rise in 2017, numerous governments worldwide have begun to regulate and supervise digital money. As more investors are investing in

cryptocurrencies, market capitalization is increasing. It was evident in the analyses conducted in this research.

NirVulkan, Thomas Astebro & Manuel Fernandez Sierra (2016): Equity Crowdfunding: A New Phenomenon

In this paper, researchers compared descriptive statistics and regression results to research on rewards-based crowding; they found some fascinating similarities and noteworthy differences. Equity crowdfunding will likely offer significant hurdles to V.C. and business angel investors.

René M. Stulz, The Ohio State University (2022): FinTech, BigTech, and The Future of Banks

The study discovered that the uneven playing field allows non-bank FinTech firms to challenge banks in specific product categories where success is not related to what makes banks unique—namely, their deposit-gathering powers and the potential for deposit-based synergy with borrowers. FinTech and BigTech contribute to a trend in which banks lose a competitive advantage from having faster access to information about credit applicants. FinTech companies build quicker horses, whereas TechFin companies work with planes.

Mercurius Broto Legowo, Steph Subanidja, Fangky Antoneus Sorongan (2021): FinTech and Bank: Past, Present, and Future

According to FinTech's development until now, FinTech has impacted the Bank's operations in the past, present, and future. These facts serve as the foundation for this study's attempt to give a descriptive examination of the history, present, and future of banks and FinTech. This study employs both qualitative method techniques and a descriptive-analytic research methodology. What occurred to FinTech and the Bank in the past, present, and the analysis findings reveal the future. This study's contributions can lighten the relationship between banks and FinTech in the past, present, and future.

Mishra, D. S. K. (2009): Virtual Banking: from conventional to competitive approach

This research demonstrates how "virtual" banks are expanding in India. In the current study, virtual banking services provided by banks are used to try to quantify these concerns. The responses to a structured questionnaire using a 3-point Likert scale may indicate this. With a straightforward random sample procedure, the questionnaire, which contains demographic information about the consumer and questions about awareness, perception, and degree of pleasure, is extremely successfully interpreted. According to the study's findings, virtual banking automates lessens the customer's reliance on live bank employees for assistance with straightforward transactions and printing statements.

Dong, H., Ross, L., Vikram, H., Tommaso, M. G., Nigel, J., Mikari, K., ... & Hervé, T. (2017): FinTech and Financial Services: Initial Considerations

This article lays forth an economic framework for considering how fintech may offer remedies that address customer demands for security and improved services. It combines a thorough examination of financial services industry developments with an emphasis on cross-border payments, particularly the effects of distributed ledger technology. The study concludes that entry barriers are shifting and that improvements in cross-border payments are anticipated. The paper makes the case that regulatory authorities must keep faith in a changing financial system, and regulatory authorities must carefully balance and stabilize trade-offs in the face of fast change.

REVOLUTIONIZATION IN FINTECH

a. FinTech 1.0 – 2.0

During this time, the community began to be introduced to ATMs, which marked the beginning of the industry's transition from analog to digital. Technology has previously played a role in sending information across borders, especially financial information.

Banks in the 1.0 – 2.0: Mishra (2012) alluded to the following technological advancements in banks during this period: Mechanical banking was developed in 1960, the computer-based banking sector was introduced in 1970, and computer-based banking communication was released in 1980.

b. FinTech 2.0 – 3.0

Currently, we are transitioning from the FinTech 2.0 to FinTech 3.0 age. The most important financial invention is the ATM. Traditional financial institutions use e-payment and clearing technologies to improve their products and services.

Bank in the Present: Commercial banks are rapidly transitioning to virtual banking. Non-branch banks are characterized as providers of banking services via electronic means such as ATMs, telephones, personal computers, and the internet.

c. FinTech in 3.0 – 3.5

It might be described as the democratization of digital financial services in this era. These newcomers will employ technological advancements to provide financial assistance to customers without direct intermediaries. IoT, while Data Analytics technology, will become more prevalent in banking as the FinTech 3.5 age progresses. Bitcoin, Blockchain, Crypto, and Robo – Advisors are examples of future FinTech products related to banking.

Banks in the Future: There will be FinTech Banks and BigTech enterprises in the banking industry in the future. FinTech Bank is a fintech company that engages in business activities, including internet banking. BigTech Companies' distinct advantages enable them to take over traditional banking functions. BigTech's true strength lies in banking, notably in consumer loans and lending to small and medium-sized businesses.

IMPACT OF FINTECH ON THE FINANCIAL SECTOR

In the era of revolutionization, there is a significant impact of FinTech on the financial sector. Rapid developments in digital technology are changing the financial services industry and posing opportunities and challenges for customers, service providers, and regulators.

a. Technology may affect the factors shaping intermediaries:

Market imperfections prevalent in the financial system derive the need for trusted intermediaries. Technology can reduce asymmetric information, the matching of parties for the transaction, and lower the transaction cost. Technology also incentivizes vertical and horizontal integration of intermediaries.

b. Regulations in the financial sector:

The vulnerabilities and imperfections in the financial market weaken financial stability, debilitate market efficiency, and expose consumers to risk. A robust financial regulation should address systematic risk and confidentiality of consumer information, encourage competition, and curb oligopoly.

c. Developing financial regulation that will aid in building trust in the financial system:

Creating value through transferring assets and claims among entities is the essence of finance. Trust among the entities involved in assets being transferred is a prerequisite. The technology of the financial Market hampers if there is a lack of trust in financial intermediaries and processes. Technology may not eliminate the need for trust but may persuade market participants to search for it beyond the traditional intermediaries.

d. Emerging technologies could raise financial stability risks:

The new risk might emerge with the growth of financial service outside the periphery of supervisory and regulatory framework. Evolving technology may significantly accelerate the speed and volume of financial transactions. However, it is uncertain whether it will aid in promoting financial stability or while enhance volatility and instability. Too much dependence on automatic transactions could plausibly increase market volatility due to higher asset price correlation.

e. A shift from entity – based regulations towards activity – based regulations: Traditional financial regulations were based on regulation of types of entities and types of activities. To bring the new types of service providers within the regulatory boundaries, licensing regimes will need to be redesigned.

f. Supervision and governance of algorithms at the heart of FinTech advances may be required to instill trust in the systems that rely on them:

The algorithms need to be designed and operated to prevent consumers and the financial system from undue risks. Standards imposed by network self – governance and transparent governance provides some assurance, but the inherent limitation of self – governance cannot be avoided.

FUTURE CONTRIBUTION OF FINTECH

Several significant technologies will drive business model reinventions and shape the competitive environment of the financial industry during the next ten years.

a. Artificial intelligence will drive massive value creation:

Banks and other financial institutions are expected to embrace an AI-first approach, which would better position them to fend against technological encroachment on their turf. A.I. applications will permeate the financial industry's front, middle, and back offices. Tailor-made products, personalized user experiences, analytics services, intelligent service robots, chat interfaces, market trackers, automated transactions, Robo-advisors, alternative credit ratings based on non-financial data, and facial recognition authentication are all examples of customer-facing applications.

b. Blockchain will disrupt established financial protocols:

Cross-chain technology will increasingly facilitate blockchain interoperability, allowing chains built on multiple protocols to share and transmit data and value across tasks and industries, such as payments and supply chain management. The World Wire API was connected to banks' payment systems, after which World Wire converted the digital asset to currency and completed the transaction.

c. Cloud computing will liberate financial services players:

According to McKinsey, cloud technology will account for over \$1 trillion in EBITDA (profits before interest, taxes, depreciation, and amortization) across the world's top 500 corporations by 2030 as 5G connectivity generates new interactions and synergy across the internet of things (IoT), cloud computing, A.I., and other technologies. The container as a service platform will become increasingly essential to cloud technology companies.

d. Internet of things (IoT) will drive a new era of trust:

IoT is now coming of age, after years of languishing in the lowest reaches of the hype cycle, with significant implications for financial services. IoT communication solutions are growing in popularity, allowing objects to communicate via a more extensive range of networks, including wired and wireless, near-field communication, and low-power wide-area networks. In banking, IoT-based inventory and property financing, which combines IoT with blockchain, is improving risk management by verifying that accounting records match real-world transactions, allowing for a brand new system of trust.

CONCLUSION

The researchers conducted a literature review of the revolution in FinTech and its impact on the financial sector. It was observed that banks and financial institutions are going through a significant transformation to keep up with the advancement of digital technology. According to the study, FinTech will significantly improve investment practices that provide superior client information supported by blockchain technology. Blockchain in FinTech can offer a much more effective financial alternative than we presently have, based on equity and decentralization.

The need for transformation in technology, collaboration, and reducing costs has led to the digitalization of traditional banks. Banking and financial services always strive to improve customer experience by looking for advanced technology to enhance client experiences. The advancement of technology and ever-rising customers' expectations are the key driving factors in the financial sector. Recent developments in financial technology have brought about a massive change in business and financial services. Despite being a superior technology in the banking and financial sector, Blockchain still confronts several difficulties. This paper sets a framework for thinking through the economic channels by which technology affects financial services. It highlights the evolving needs of users and the unique role played by imperfections in market and cost structures in the financial markets. FinTech firms can substantially change financial markets by reducing imperfections and transforming existing cost structures. FinTech offers products and services that meet the users' needs for trust, speed, lower cost, security, and transparency.

Will the changes be gradual and evolutionary or potentially disruptive only time will unfold? New technologies might lower business costs and support more gradual change, where existing players may acquire new technologies from new entrants. However, rapid changes in existing market structures could stimulate a more disruptive evolution.

These possibilities pose both challenges and opportunities for regulators and central banks. Fintech could challenge the status quo of stability versus efficiency trade-offs which regulators aspire for. Managing trust and privacy-related issues will be challenging. On the other hand, the benefits of the technology for user choice, cost, and access are sizable. Moreover, fintech may offer solutions to current regulatory challenges, including knowing your customer and AML/CFT issues. Central banks are also assessing how fintech may impact their current dominant role in payments systems and the provision of a medium of exchange.

REFERENCES

1. Belleflamme, P., Lambert, T., & Schwienbacher, A. (2010, June). Crowdfunding: An industrial organization perspective. In Prepared for the workshop Digital Business Models: Understanding Strategies', held in Paris in June (pp. 25-26).
2. Dapp, T., Slomka, L., AG, D. B., & Hoffmann, R. (2014). Fintech—The digital (r) evolution in the financial sector. Deutsche Bank Research, 11, 1-39.
3. Das, S. R. (2019). The future of fintech. *Financial Management*, 48(4), 981-1007.
4. Dong, H., Ross, L., Vikram, H., Tommaso, M. G., Nigel, J., Mikari, K., ... & Hervé, T. (2017). Fintech and Financial Services: Initial Considerations. IMF, Monetary and Capital Markets, Legal, and Strategy and Policy Review Departments.
5. Legowo, M. B., Subanidja, S., & Sorongan, F. A. (2021). Fintech and bank: Past, present, and future. *Jurnal Teknik Komputer AMIK BSI*, 7(1), 94-99.
6. Prawirasasra, K. P. (2018). Financial technology in Indonesia: disruptive or collaborative. *Reports on Economics and Finance*, 4(2), 83-90.
7. Shneur, R., & Mæhle, N. (2020). Advancing crowdfunding research: new insights and future research agenda.
8. Stulz, R. M. (2022). FinTech, BigTech, and the Future of Banks. *Journal of Applied Corporate Finance*, 34(1), 106-117.
9. Valdeolmillos, D., Mezquita, Y., González-Briones, A., Prieto, J., & Corchado, J. M. (2019, June). Blockchain technology: a review of the current challenges of cryptocurrency. In *International Congress on Blockchain and Applications* (pp. 153-160). Springer, Cham.
10. Vulkan, N., Åstebro, T., & Sierra, M. F. (2016). Equity crowdfunding: A new phenomena. *Journal of Business Venturing Insights*, 5, 37-49.

BEHAVIOURAL BIAS OF INVESTORS IN INDIAN STOCK MARKETS: AN EVIDENCE FROM IPO MARKET

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ABSTRACT

Traditional finance assumes that people, institutions, and even markets behave rationally. By contrast, behavioural finance challenges this assumption of rationality and suggests that investors tend to systematically deviate from optimal financial decision-making due to the presence of cognitive bias that is heuristics. “Heuristics are characterized as the rule of thumb, which resolves the basic decision-making problems, particularly in complicated and problematic conditions by decreasing the unpredictability of evaluating probabilities and anticipating values of simpler judgments according to Tversky and Kahneman (1974).” The Modern finance perspective indicated that investors do not always act irrationally. They contribute their funds by examining the risk and reward and face a lot of psychological and sentiment biases. This paper aims to examine the presence of different behavioural biases among IPO retail investors in Kerala. “Behavioural biases including overconfidence and self-attribution, the disposition effect, anchoring bias, representativeness and herding were found among the investors, hence, supporting the view that individual investors do not act rationally which is consistent with findings of (Shiller, 2000).” Retail investors in IPO can buy those stocks from the secondary market once the shares get listed in the respective stock market. But the investment is made with the sole objective of gaining listing day gain, which is always not certain. This study is conducted based on a questionnaire distributed to stock market investors in Kerala. Age, occupation, and investment experience are the most important demographic variables that relate to the behavioural biases of the individual investors in the sample.

Regarding gender, males are more overconfident than are females about their knowledge of the stock market. The study may have implications for financial educators in promoting financial awareness programs for individuals. Financial advisors can potentially become more effective by understanding their clients’ decision-making process.

Keywords: Behavioural finance, Behavioural biases, Retail Investors

JEL Code: G4; G11; G12

INTRODUCTION

Standard finance, also known as traditional finance, is based on various theories and principles, for example, the arbitrage principles of Miller and Modigliani; the portfolio principles of Markowitz; the option-pricing theory of Lintner, the capital asset pricing theory of Sharpe and Black and the Merton and Scholes. All these classical economic theories state that investors behave rationally and there is informational efficiency in the markets. So, based on these theories, all market participants work efficiently and systematically.

According to (Fama, 1970) the Efficient Market Hypothesis theory believes that the market functions so that prices of securities reflect the true value based on all the available information in the efficient market condition. According to Kahneman and Tversky (1979) “Traditional finance considers that investors’ decisions are based on the Expected utility theory. However, despite all the assumptions of traditional finance regarding an investor’s

rationality and market efficiency, behavioural economists argue that investors' behaviour and market behaviour can be irrational and inefficient".

Behavioural finance emerged in the 1970s as a new concept that combined the behavioural and psychological aspects in investment decision-making that supplemented the traditional financial theories. According to Kahneman and Tversky (1979) "Behavioural finance challenges the efficient market perspective and analyses investors' cognitive abilities and psychological phenomenon in investment decision making". "Behavioural finance explains that an individual investor in investment decisions may be irrational because of their psychology and the market may be inefficient."

"Behavioural finance recognizes that an investor's decision making is influenced by individual psychology and market psychology". Shefrin (2010) stated that "the root cause of the 2008 global financial crisis was psychological pitfalls that influenced the judgements and decisions of financial firms, rating agencies, government regulators and institutional investors". It indicates that issuers (corporates and governments) are also prone to making mistakes. Some researchers (Shefrin and Statman, 1985; Daniel et al., 1998) have suggested that "individual investors are susceptible to various behavioural anomalies, which can become the biggest obstacle in their attempt to maximize wealth". Also, the poor performance of retail investors is also documented by Odean (1998, 1999). Therefore, it becomes necessary to study the behaviour of retail investors while making financial decisions. However, very little work has been done to understand the biases of Indian individual investors (Sahi and Arora, 2012). The present study is motivated by the limited literature in the field of behavioural biases of retail investors investing in the IPO market.

LITERATURE REVIEW

A review of the literature on financial literacy and its measurement quickly reveals that there is no common definition for, nor an established method of measuring, financial literacy. Not surprisingly, there are studies that point out this issue and develop definitions and/or measurement methods suggested for widespread use.

President's Advisory Council on Financial Literacy-PACFL (2008:35) defines financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being". Hung, Parker and Yoong (2009: 11-12) suggest that this definition focuses on the ability to use the knowledge and skills needed to achieve financial welfare and they indicate that it is a behaviorally-based definition. The authors also argue that financial knowledge, skills and behavior, together with the relationships between these concepts, need to be considered to give a comprehensive definition of financial literacy and they offer the following definition: "knowledge of basic economic and financial concepts, as well as the ability to use that knowledge and other financial skills to manage financial resources effectively for a lifetime of financial well-being."

Remund (2010: 284), who analyzed more than a hundred resources on financial literacy and confirmed the lack of a common ground for defining and measuring financial literacy, defines financial literacy as "a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions".

Similarly, the following studies are examples of the great deal of variation in measuring financial literacy. Volpe, Chen and Pavlicko (1996) used 10 multiple choice questions measuring investment knowledge. Hilgert and Beverly (2003) assessed the level of financial literacy using 28 true/false type of financial knowledge questions on topics such as

investment, saving, cash flow and so on. In one of their studies, Lusardi and Mitchell used multiple choice questions, 5 of which are basic questions mainly related to the time value of money and 8 of which are advanced questions on more sophisticated issues such as the difference between stock and bond, and the function of the stock market (Lusardi & Mitchell, 2007b). In another study, they measured financial knowledge using 3 questions on interest rates, inflation and diversification (Lusardi & Mitchell, 2008).

There are a number of studies on financial literacy in the United States of America (U.S.) and these studies indicate low levels of financial literacy across the U.S. population. Although these studies target the general population (Volpe, Kotel, & Chen, 2002; Hilgert, Hogarth, & Beverly, 2003; Lusardi & Tufano, 2009) or different demographic groups such as university students (Volpe et al., 1996; Chen & Volpe, 1998) and elderly population (Lusardi & Mitchell 2007a, 2007b, 2008; Lusardi, Mitchell, & Curto, 2014), they all find that the level of financial literacy in the U.S. is low. Studies conducted in other countries also report low levels of financial literacy.

Most of the aforementioned studies not only aim to assess financial literacy level, but also to investigate the relationship between financial literacy level and financial behavior. For example; Chen and Volpe (1998) claim that college students' knowledge of personal finance is inadequate and this inadequacy will affect them negatively in their financial decisions. Hilgert et al. (2003) suggest that the success level in the practices such as cash flow management, credit management, saving and investment is higher when the financial literacy level is higher. Lusardi and Mitchell (2007b) find that financial literacy is the primary determinant of retirement planning. Wang's (2009) findings suggest that investors' objective and subjective knowledge and risk taking behaviors are highly correlated. Hibbert, Lawrence and Prakash (2012) conduct a survey to investigate the impact of formal financial education on the management of retirement savings, and find that finance professors are more likely to actively manage their retirement portfolios and less likely to use naive diversification strategies compared to English professors.

The studies on financial literacy in Turkey also suggest low levels of financial literacy (Bayram, 2010; Akyol, 2010; Altıntaş, 2011). Some interesting findings from these studies are as follows: Although their financial literacy level is low, students are not aware of this fact (Bayram, 2010). Financial awareness of private banking employees still needs to be enhanced in spite of their advantages such as higher education, and professional experience (Akyol, 2010). Educational background of students (business majors/non-business majors) does not have a significant impact on their financial literacy level (Altıntaş, 2011).

Although not studying behavioral finance in a technical sense, the following papers look into the relationship between financial literacy and various aspects of financial behavior: Bayram (2010) analyzes the financial literacy level and money management behavior of university students and finds that students perceive the term "financial literacy" in a narrow sense as "saving money regularly, paying the bill on time, keeping the financial records", and their main source of knowledge about money management and spending is their families. Araz (2012) conducts an analysis in two parts to analyze the effect of financial literacy on credit card arrears. In the first model, financial literacy, income and wealth are found to have no effect. However, in the second model, she finds that people hit by external shocks can overcome financial difficulties and avoid defaults if they are financially literate and if they have a high income and a big household population. Sevim, Temizel and Sayılır (2012) conduct a survey in order to measure the effect of financial literacy of Turkish financial consumers on their borrowing behavior. Their results indicate that financial consumers with a higher level of financial literacy are not expected to exhibit excessive borrowing behavior and more likely to use their credit cards in an informed manner.

Sezer and Demir (2015) examine the relationship between the financial literacy and behavioral biases of Turkish investors. They find that there is no correlation between investors' behavioral biases and their financial literacy level. To the best of our knowledge, this is the only academic work that uses Turkish data to look into the relationship between the financial literacy and behavioral biases.

Because financial literacy studies do not have a common method of measurement, financial literacy levels found in these studies are not comparable. However, The OECD/International Network on Financial Education (INFE) developed a questionnaire aimed to have a comprehensive measurement of financial literacy of individuals with different backgrounds in different countries. INFE conducted this questionnaire in 14 countries throughout 4 continents (Atkinson & Messy, 2012). Berberoğlu, Çoşkun and Şahin (2014) carried out the OECD/INFE survey in Turkey and obtained Turkish data that is comparable to the data of other countries in the INFE survey. They find that a financial literacy index for Turkey is 59.8 while the same index value for other countries is 62.3 (The Economy Bank of Turkey, 2014).

Behavioral biases that prevent investors from being rational, termed "systematic errors of judgment" (Kahneman & Riepe, 1998: 53), are important tools of behavioral finance to explain the irrational behavior of investors. For instance, conservatism, defined as "tendency to cling tenaciously to a view or a forecast" (Montier, 2002: 4), causes investors to underreact to new information; overoptimism, defined as "overestimate of the probability that a favorable outcome will occur, or underestimate that a negative outcome will occur" (Puri & Robinson, 2007: 8) causes one to focus on the more promising events while analyzing financial reports or analyst forecasts. Because determination and classification of behavioral biases that have an impact on investor behavior is quite complex and difficult, there are different lists and classifications for behavioral biases in the literature. In explaining behavioral biases, this study is based on the classification of Montier (2007), who simplified Hirshleifer's (2001) complex classification in order to outline the most common biases and to emphasize the ones that have direct possible outcomes in terms of investment.

OBJECTIVES OF THE STUDY

This study aims to develop an understanding of the behavioural biases of retail investors in IPO market. The behavioural biases of retail investors are incomplete without the study of the socio-demographic and psychographic factors of individual investors. Therefore, the present study also incorporates socio-demographic variables such as gender, age, marital status, education, occupation, income, investment experience while studying behaviour of retail investors.

The main objective of the study was to identify which behavioural biases exist among retail investors in IPO market.

1. To identify the existence of behavioural biases among retail investors in IPO market.
2. To explore the effect of socio-demographic variables on behavioural biases among retail investors.

RESEARCH METHODOLOGY

Data

For the purpose of data collection, a survey questionnaire was used composed of 2 parts: The first part of the questionnaire contains the investors investment sophistication and some demographics. The second part of the questionnaire contains 22 questions aimed at detecting

behavioural biases. The questions related to behavioural biases were drawn and composed from relevant literature. The responses were recorded on a seven-point Likert scale.

We conducted a reliability analysis for the behavioural bias scale has a degree of internal consistency, with a Cronbach's alpha of 0.794 which is quite reliable.

Sample

We conducted the survey with 68 individual stock investors who have invested in IPO and selected by random sampling from the district having highest literacy rate in Kerala that is Kottayam. 8 out of 68 questionnaires were excluded from the analysis due to missing data, so the analysis was done with 60 questionnaires.

Dependent Variable

Level of behavioral biases: Respondents are presented with a list of 22 statements that exemplify 11 behavioral biases (2 statements for each behavioral bias) and the responses are taken on a seven-point Likert scale, ranging from "1=strongly disagree" to "7=strongly agree". The average of an investor's responses to the 2 statements representing the same bias is taken to be the level of the relevant behavioral bias. Finally, each of the behavioral biases representativeness, hindsight, herding, self-attribution, anchoring, conservatism, overoptimism, cognitive dissonance, illusion of knowledge, availability, loss aversion, and overconfidence is used as the dependent variable in the regression model.

Independent Variables

There are numerous studies finding that demographic factors have an impact on some behavioral biases (e.g., Barber & Odean, 2001; Bhandari & Deaves, 2006; Baddeley et al. 2010; Lin, 2011; Jamshidinavid, Chavoshani & Amiri, 2012). Therefore, gender, marital status, age, education, investment experience, source of financial information were added as independent variables in our regression models.

FINDINGS

Demographic Variables

According to demographic characteristics, the sample is mostly composed of males (78.3%) and the majority (75%) is between 18-40 years old. 45% have a bachelor's degree and 30% completed schooling. 55% are married and 45% are single investors. 70% have less than 3 years of stock investment experience. And in the case of their main source of financial information, 28.3% indicate advice from parents or friends as the most commonly used source of information. Table 1 in the appendix shows the summary of demographic characteristics of the sample.

Analysis of Behavioral Biases

For each behavioural biases two statements were asked. Therefore, the average of the investors response to those two statements is taken as the level of behavioral bias. The sample mean is over 3.28 for each of the biases. This suggests that the respondents have a high level of the behavioral biases investigated in this study. The representativeness, herding, and hindsight biases have the highest sample averages, 3.82, 3.78, and 3.67, respectively. Table 3 in the appendix shows the mean values of the behavioral biases.

ANOVA/t-tests were used to compare the levels of behavioral biases across different subsamples. This shows that:

- Illusion of control, illusion of knowledge, overconfidence, hindsight are greater for males than for females.
- Single investors' level of overoptimism, illusion of knowledge and overconfidence is significantly higher than the married investors. On the contrary, cognitive dissonance and Loss aversion is significantly higher for married investors.

- Working-age investors have a significantly higher level of loss aversion bias than the case of retired group.
- Investors who are not having undergraduate degree have significantly higher levels of representativeness and herding bias.
- Investors who have investment experience of more than 1 year are significantly more likely to suffer from overconfidence, self-attribution, hindsight, cognitive dissonance, conservatism, and anchoring biases compared to investors who have investment experience less than 1 year.
- Investors that get advice from parents or friends as their main source of financial information are more prone to availability bias compared to investors who use other sources of financial information.

Table 4 in the appendix shows the ANOVA/t-tests results statistics regarding the level of behavioral biases based on demographics.

CONCLUSION

The main objective in this study is to investigate the presence of behavioural bias among IPO investors, which leads to irrational behaviour in investment decision making. We also examined the demographic factors that influence the level behavioural biases.

To this end, we analyse a random sample of 60 individual stock investors in Kottayam, Kerala. Advice from parents or friends is found to be the most preferred source of financial information (28.3%). This contradicts with the finding of study done by Sezer and Demir (2015), who find that advice from friends are the least preferred source of financial information for the investors. Advice from professional investment advisors (15%) and Reports and analysis of stock brokers (18.3%) are also among the most commonly used information sources. At the other end are financial reports of the companies (13%), reports and media (5%).

Although the investors have a high level of all the behavioral biases mentioned in this study; representativeness, confirmation and hindsight biases are the most common biases among investors. More precisely, “because of representativeness bias, investors believe that the stocks of well-known companies are good stocks and past performance of the companies is representative of their future performance, but they fail to notice the fact that good companies do not perform well and bad companies do not perform poorly at all times (Nofsinger, 2004).” Confirmation bias causes investors to pay attention to views that approve their investment decisions and to ignore views that conflict with them instead of questioning their investment decisions objectively. Investors with hindsight bias believe that they had predicted the results of the past events before they happened, even though the events were unexpected economic events such as a financial or economic crisis, or sudden changes in the exchange rates (Pompian, 2011).

One of the most notable results regarding the behavioral biases is males’ higher level of illusion of control, illusion of knowledge, overconfidence, hindsight biases compared to females. Sezer and Demir (2015) also find that males have higher level of overreaction bias, familiarity bias, home bias and disposition effect. These findings are consistent with males being more prone to biases and hence more likely to make investment mistakes. Another noteworthy finding is that experienced investors (who have stock investment experience of more than 1 year) are more likely to suffer from overconfidence, self- attribution, hindsight, cognitive dissonance, and anchoring biases compared to inexperienced investors. This suggests that market experience does not lower the level of behavioral biases.

One policy-related suggestion of our results stands out: Efforts to increase financial literacy level of the investors will not eliminate all the behavioral biases. To ensure well-informed financial decisions, spreading awareness of behavioral biases is also necessary. Financial

education programs should be designed accordingly. This point should be addressed in future research.

In future research, aspects of financial literacy can also be included in the scales as an attempt to fully uncover the relationship between financial literacy and behavioral biases. In addition, whichever measure or scale is used an empirical study, the academic community should try to come up with a common measure so that studies across countries and time can be reliably compared.

REFERENCES

- Abreu, M., & Mendes, V. (2010). Financial literacy and portfolio diversification. *Quantitative Finance*, 10(5): 515-528.
- Akyol, C. (2010). Effects of financial awareness on investor choice: A research concerning financial awareness of private bank workers. Master's thesis, Anadolu University Institute of Social Sciences, Eskişehir.
- Altıntaş, K. M. (2011). The dynamics of financial literacy within the framework of personal finance: An analysis among Turkish university students. *African Journal of Business Management*, 5(26): 10483-10491.
- Araz, T. (2012). Financial literacy and credit card arrears. Master's thesis, Boğaziçi University Institute of Social Sciences, İstanbul.
- Atkinson, A., & Messy, F. (2012). Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study. OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing.
- Baddeley, M., Burke, C., Schultz, W., & Tobler, P. (2010). Impacts of personality on herding in financial decision-making. University of Cambridge, Faculty of Economics.
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *Quarterly Journal of Economics*, 261-292.
- Barberis, N., & Thaler, R. (2003). A survey of behavioral finance. Chapter 18 in Constantinides, G.M., Harris, M., Stulz, R. (Eds.), *Handbook of the Economics of Finance* (pp. 1052-1121). Elsevier Science B.V.
- Bayram, S.S. (2010). Financial literacy and money management behaviours: Application on students of Anadolu University. Master's thesis, Anadolu University Institute of Social Sciences, Eskişehir.
- Benartzi, S., & Thaler, R. H. (2007). Heuristics and biases in retirement savings behavior. *Journal of Economic Perspectives*, 21(3): 81-104.
- Berberoğlu, M. G., Çoşkun, A., & Şahin, M. A. (2014). Financial literacy in Turkey: A field study to touch base with the OECD, Boğaziçi University Working Paper.
- Bhandari, G., & Deaves, R. (2006). The demographics of overconfidence. *The Journal of Behavioral Finance*, 7(1): 5-11. Bucher-Koenen, T., & Ziegelmeyer, M. (2011). Who lost the most? Financial literacy, cognitive abilities and the financial crisis, ECB Working Paper Series, 1299.
- Campbell, J. Y., Jackson, H. E., Madrian, B. C., & Tufano, P. (2011). Consumer financial protection. *The Journal of Economic Perspectives: A Journal of The American Economic Association*, 25(1): 91.
- Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2): 107-128.
- Collins, J. M., & O'Rourke, C. M. (2010). Financial education and counseling—Still holding promise. *Journal of Consumer Affairs*, 44(3): 483-498.

- Duflo, E., & Saez, E. (2003). The role of information and social interactions in retirement plan decisions: Evidence from a randomized experiment. *Quarterly Journal of Economics*, 118(3): 815–842.
- Guiso, L., & Jappelli, T. (2008). Financial literacy and portfolio diversification. EUI Working Paper, 31.
- Hibbert, A. M., Lawrence, E. R., & Prakash, A. J. (2012). The role of financial education in the management of retirement savings. *Journal of Behavioral Finance*, 13(4): 299-307.
- Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 89: 309-322.
- Hirshleifer, D. (2001). Investor psychology and asset pricing. *The Journal of Finance*, 56(4): 1533-1597.
- Hung, A. A., Parker, A. M. & Yoong J. K. (2009). Defining and measuring financial literacy. RAND Working Paper Series, No.708.
- INFE. (2009). Financial education and the crisis: Policy paper and the guidance. (<http://www.oecd.org/finance/financial-education/50264221.pdf>).
- Jamshidinavid, B., Chavoshani, C., & Amiri, S. (2012). The Impact of Demographic and Psychological Characteristics on the Investment Prejudices in Tehran Stock. *European Journal of Business and Social Sciences*, 1(5): 41-53.
- Kahneman, D., & Riepe, M. W. (1998). Aspects of investor psychology. *The Journal of Portfolio Management*, 24(4): 52-65.

AWARENESS ABOUT EMERGING FINTECH TRENDS AMONG PEOPLE OF SURAT CITY

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Abstract

Fintech is a wide universe. Many new domains have entered this universe over the last decade. However, the studies have shown that digital payment is the most used of them. This study checks the awareness level of different Fintech domains among the people living in Surat city. The study is based on primary data collected through a questionnaire that was filled by 213 respondents using the convenience sampling method. The study will help the businesses and start-ups that take place in the Fintech industry in and around Surat city and will also direct future research.

Key Words: *Fintech, Awareness, Blockchain, AI, Robo Advisories*

Introduction

Financial services are one of the most important services of the economy which is connected with people's daily life. In each era, these services were offered differently by providers and were also consumed differently by consumers. In today's era of technology, financial services have shaken hands with technology. With the use of Fintech, not only banks but also non-banking financial institutes are providing financial services to consumers in the best possible way.

The term "fintech" refers to new technology aimed at improving and automating the provision of and use of financial services. Fintech uses specialized software and algorithms that are employed on computers and smartphones to assist businesses, company owners, and individuals in managing their financial operations (ClearTax, 2022). It is a term first coined around early 1990s and has become a buzzword since 2015.

Fintech has challenged the way traditional banking was being provided. It has put the consumer in the spotlight and has created a win-win situation between a service provider and a user (PwC, 2016). Innovative business models have emerged as a result of the fintech industry's exponential growth. Blockchain, cloud computing, internet of things (IoT), artificial intelligence (AI), and Robo advisers are examples of advanced technologies that have the ability to both enhance and speed banking and finance processes as well as disrupt them (Ali, et al., 2018).

Indian Fintech ecosystem is the third largest fintech ecosystem globally with a market size is \$50 Bn in 2021 and is estimated at ~\$ 150 Bn by 2025. Payments, Lending, Wealth Technology (WealthTech), Personal Finance Management, Insurance Technology (InsurTech), Regulation Technology (RegTech), and many other subsegments make up the Indian Fintech business ecosystem. India also has the highest adoption rate of Fintech at 86% (Invest India, 2022). Gujarat which is one of the most prosperous states of India also has a good fintech ecosystem with more than 175 start-ups in Ahmedabad, 54 start-ups in Surat,

and 26 start-ups in Vadodara city (Tracxn, 2022). This makes it worth studying the level of awareness among people of Surat city regarding emerging Fintech trends which will help the businesses and start-ups that take place in Fintech industry in and around Surat city.

Literature Review

(Abu Daqar, Arqawi, & Karsh, 2020) study on "Fintech in the eyes of Millennials and Generation Z (the financial behavior and fintech perception)". The objective of the study was to check the perception of Gen Y and Gen Z about Fintech. The results showed different views between millennials and Gen Z according to their financial behavior and their perception of fintech services.

(Ali, et al., 2018) studied "Awareness and Knowledge of Fintech among Islamic Banking and Finance Students in Pakistan". The objective of the study was to find out how well-informed Islamic banking and finance students were regarding the ideas and expressions used commonly in fintech. The study showed that the students were required to be more aware of Fintech and its emerging trends.

(Jain, Ahemad, Khandelwal, & Misra, 2019) studied on "Fintech and Adoption Model: A User Perspective". The objective of the study was to comprehend the viewpoint of the user with regards to fintech services, specifically payment, planning, loan, and borrowing. The study concluded that most people were more satisfied with their payments than with their financial planning, borrowing, and lending.

(Rai & Sharma, 2019) studied on "Awareness about Digital Financial Services among Students". The study's objective was to determine the degree of awareness regarding digital financial services in Delhi among students at higher education institutions. The findings indicated that male and female students in higher education institutions had significantly different levels of awareness of digital financial services.

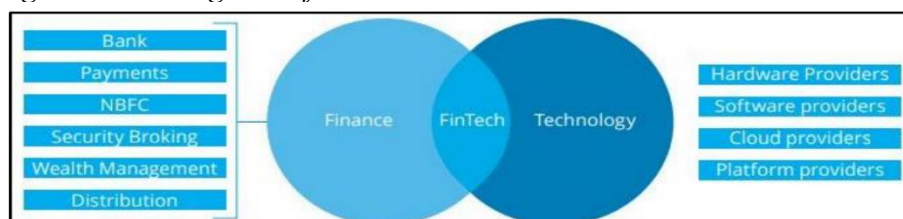
Fintech and its trends

The increasing use of the internet over the past few decades has changed a wide range of sectors. The finance sector has also collaborated with the Internet. The combination was formerly known as Digital Finance. Nowadays the term Fintech is used as a widely spread concept.

The origin of the use of technology dates back to 17th century however it is said that the term Fintech was first used in 1993 (MoneyLens, 2020). The implication of the term is still unclear. Scholars, researchers, and academics, however, have offered diverse perspectives on how the term should be understood.

According to (Punter & Shanker, 2016) "Fintech may be defined as technology-based businesses that compete against, enable and/or collaborate with financial institutions." (Leong & Sung, 2018) defines Fintech "as a cross-disciplinary subject that combines Finance, Technology Management, and Innovation Management." In Fintech, financial services make convergence with technology and work with a consumer-centric approach.

Figure:1 Convergence of Fintech



Source: (Gupta & Agrawal, 2021)

Since the outbreak of Covid-19 pandemic, many people have used at least one Fintech service (BFSI, 2022). The technologies that underpin financial products and services

are essential to the growth of the FinTech sector. Here are some emerging trends in Fintech Industry.

InsurTech:

It is a combination of words Insurance and technology. Insurtech refers to new insurance technology that improves the customer experience, simplifies policy management, and increases competition. Fintech innovations have proved to be a challenge for Insurance companies. This is the reason why Insurance companies are heading toward innovations.

RegTech:

Regulation Technology helps businesses and organizations to deal with complex industry regulations. The value of the compliance software solution is predicted to reach \$55.28 billion by 2025 given the importance of RegTech(BFSI, 2022).

Artificial Intelligence:

Artificial intelligence may reduce the need for human labor, enhance security protocols, and make sure that the company is heading in the proper tech-forward, creative direction. According to Forbes, machine learning is being used by 70% of financial institutions around the globe to forecast cash flow events, modify credit scores, and identify fraud(BFSI, 2022).

Blockchain:

Blockchain is a distributed, unchangeable ledger that can be used to record transactions, track assets, and foster trust. Because all network nodes review financial transactions, it shields users from transactional problems. Blockchain enables faster and lower-cost international payments and transfers(IBM, n.d.).

Robo Advisories:

RPA in finance refers to the development of robots that can carry out financial services jobs with little to no human assistance. RPA will play a significant role in the banking industry by maximizing client satisfaction at the lowest possible cost (BFSI, 2022).

Big Data:

The large amount of everyday data those financial institutions produce is referred to as "big data in finance." This data can come from a variety of sources. The biggest issue for firms is gathering this data, interpreting it, and drawing out insightful conclusions. Big data analytics can be useful here (Shinde, 2022).

Cloud Computing:

Cloud Computing provides different services on the Internet. Cloud computing can offer financial institutions several advantages like Cost Savings, Usage-Based Billing, Business Continuity and Agility, and Green IT (Capgemini, 2011).

Digital-Only Banks:

Also known as Neo Banking, A digital-only bank solely offers financial services online and through digital devices including smartphones, tablets, and computers. With the aid of real-time data, automated processes, and electronic documents, it provides fundamental services in the most straightforward manner possible (Aggarwal & Varghese, 2018).

Peer to Peer Lending:

Lending from one person to another is known as peer-to-peer (P2P), as opposed to using a financial intermediary like a bank or credit union. P2P financing has potential advantages over conventional lending. This marketplace can provide money to the borrower with a low credit score and lenders may be able to earn more money from interest than a checking or savings account would(Kilmann, 2021).

Objective of the Study

The main objective of this study is to check the level of awareness regarding different Fintech trends among the people living in Surat city. The study will help the businesses and start-ups that take place in Fintech industry in and around Surat city.

Research Methodology

Sample and Data Collection

The study is quantitative in nature. The population for the study is people living in Surat city. The sampling method used is Non-Probability Convenient Sampling. The research used primary data collected through online survey which was conducted by distributing questionnaires to the respondents via mail, whatsapp and other social media platforms. Total 213 responses were collected. Table 1 shows the characteristics of the respondents.

Data Analysis

The research used the Statistical Package for Social Sciences (SPSS 20.0) to analyse the data. Descriptive analysis, such as the frequency, was used to answer the study questions. To check the internal reliability of data Reliability test was performed. Table 2 shows the results of reliability test.

Findings and Discussion

This section analyses the main items that have been collected from respondents.

Demographic Profile

Table:1 Demographic Variables of respondents

Gender	Frequency	Percentage
Male	120	56.30%
Female	93	43.70%
Age Group	Frequency	Percentage
Below 18 Years	37	17.40%
18 to 25 Years	112	52.60%
26 to 40 Years	53	24.90%
41 to 60 Years	11	5.20%
Above 60 Years	0	0.00%
Education Level	Frequency	Percentage
Below or till 10th Std.	3	1.40%
12th Standard	21	9.90%
Graduate	89	41.80%
Post Graduate	84	39.40%
Doctorate	16	7.50%
Annual Income	Frequency	Percentage
Not Earning	24	11.30%
Up to Rs. 2,50,000	35	16.40%
Rs. 2,50,000 to Rs. 5,00,000	63	29.60%
Rs. 5,00,000 to Rs. 7,50,000	55	25.80%
Rs. 7,50,000 to Rs. 10,00,000	32	15%
Above Rs. 10,00,000	4	1.90%

Table 1 shows that the majority of the respondents are male (56.3%) and 43.7% are female. The majority of the respondents belong to the age group between 18 to 25 Years (52.6%). 24.9% are from the age group of 26 to 40 Years, 17.4% are below 18 Years and 5.2% are 41 to 60 Years old. There is no respondent over 60 Years of age. Table 1 also shows that 41.8% of respondents are graduates, 39.4% are postgraduates, 9.9% have cleared 12th standard, 7.5% respondents have doctorate degree while 1.4% of respondents have education level below or till 10th standard. The annual income of 29.6% respondents is between Rs. 2,50,000 to Rs. 5,00,000. 25.8% respondents have income between Rs. 5,00,000 to Rs. 7,50,000. While 15.9% respondents' income is between Rs. 7,50,000 to Rs. 10,00,000 and 11.3% respondents are not earning. 1.9% respondents' income is above Rs. 10,00,000.

Validity and Reliability Test

Table:2 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.894	.902	10

Reliability test was performed to examine the internal consistency of the data. Generally, it uses Cronbach Alpha coefficient to determine the value. The Cronbach Alpha Coefficient has to be above or at 0.7 in order to attain a meaningful reliable value. In table 2, the Cronbach Alpha shows the values above 0.7 which proves the reliability of data.

Awareness of Fintech Trends

1. Do you know the term Fintech?

Table:3 Do you know the term Fintech?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	31	14.6	14.6	14.6
Valid Yes	182	85.4	85.4	100.0
Total	213	100.0	100.0	

Table No. 3 shows that 85.4% of respondents are familiar with the term Fintech. However, to 14.6% of respondents Fintech is an unfamiliar term.

2. Do you the term Insurtech?

Table: 4 Do you know the term InsurTech?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	35	16.4	16.4	16.4
Valid Yes	178	83.6	83.6	100.0
Total	213	100.0	100.0	

Table No. 4 shows that 83.6% of respondents are familiar with the term InsurTech. However, to 16.4% of respondents Insurtech is an unfamiliar term.

3. Do you know the term Regtech?

Table:5 Do you know the term Regtech?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	125	58.7	58.7	58.7
Valid Yes	88	41.3	41.3	100.0
Total	213	100.0	100.0	

Table No. 5 shows that 41.3% of respondents are familiar with the term RegTech. However, to 58.7% of respondents Regtech is an unfamiliar term.

4. Are you familiar with the use of Artificial Intelligence in Financial services?

Table: 6 Are you aware of the use of Artificial Intelligence in Financial services?

	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely aware	25	11.7	11.7	11.7
Moderately aware	111	52.1	52.1	63.8
Valid Not at all aware	6	2.8	2.8	66.7
Slightly aware	17	8.0	8.0	74.6
Somewhat aware	54	25.4	25.4	100.0
Total	213	100.0	100.0	

This table shows that 11.7% of respondents are extremely aware and another 52.1% are moderately aware of the use of Artificial Intelligence in Financial Services. 25.4% of respondents have somewhat awareness and 8% of respondents are only slightly aware. 2.8% of respondents are completely unaware of the use of Artificial Intelligence in Financial Services.

5. Are you familiar with the use of Robo Advisories in Financial services?

Table: 7 Are you aware of the use of Robo Advisories in Financial services?

	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely aware	41	19.2	19.2	19.2
Moderately aware	92	43.2	43.2	62.4
Valid Not at all aware	10	4.7	4.7	67.1
Slightly aware	14	6.6	6.6	73.7
Somewhat aware	56	26.3	26.3	100.0
Total	213	100.0	100.0	

This table shows that 19.2% of respondents are extremely aware and another 43.1% are moderately aware of the use of Robo Advisories in Financial services. 26.3% of respondents have somewhat awareness and 6.6% of respondents are only slightly aware. 4.7% of respondents are completely unaware of the use of Robo Advisories in Financial services.

6. Are you familiar with the use of Blockchain Technology in Financial services?

Table: 8 Are you aware of the use of Blockchain Technology in Financial services?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely aware	55	25.8	25.8	25.8

Moderately aware	83	39.0	39.0	64.8
Not at all aware	10	4.7	4.7	69.5
Slightly aware	12	5.6	5.6	75.1
Somewhat aware	53	24.9	24.9	100.0
Total	213	100.0	100.0	

This table shows that 25.8% of respondents are extremely aware and another 39% are moderately aware of the use of Blockchain Technology in Financial Services. 24.9% of respondents have somewhat awareness and 5.6% of respondents are only slightly aware. 5.6% of respondents are completely unaware of these of Blockchain Technology in Financial Services.

7. Are you familiar with the use of big data analysts in financial services?

Table: 9 Are you aware of the use of Big data analysts in Finance sector?

	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely aware	28	13.1	13.1	13.1
Moderately aware	105	49.3	49.3	62.4
Valid Not at all aware	8	3.8	3.8	66.2
Slightly aware	23	10.8	10.8	77.0
Somewhat aware	49	23.0	23.0	100.0
Total	213	100.0	100.0	

This table shows that 13.1% of respondents are extremely aware and another 49.3% are moderately aware of the use of Big data analysts in Financial services. 23% of respondents have somewhat awareness and 10.8% of respondents are only slightly aware. 3.8% of respondents were completely unaware of the use of Big data analysts in Financial services.

8. Are you familiar with the use of cloud computing in financial services?

Table: 10 Are you aware of the use of cloud computing in Finance sector?

	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely aware	35	16.4	16.4	16.4
Moderately aware	90	42.3	42.3	58.7
Valid Not at all aware	14	6.6	6.6	65.3
Slightly aware	19	8.9	8.9	74.2
Somewhat aware	55	25.8	25.8	100.0
Total	213	100.0	100.0	

This table shows that 16.4% of respondents are extremely aware and another 42.3% are moderately aware of the use of cloud computing in financial services. 25.8% of respondents have somewhat awareness and 8.9% of respondents are only slightly aware.

6.6% of respondents are completely unaware of these of cloud computing in financial services.

9. Are you aware of Digital-only Banking?

Table: 11 Are you aware of Digital-only Banking?

	Frequency	Percent	Valid Percent	Cumulative Percent
	1	.5	.5	.5
Extremely aware	39	18.3	18.3	18.8
Moderately aware	91	42.7	42.7	61.5
Valid Not at all aware	6	2.8	2.8	64.3
Slightly aware	23	10.8	10.8	75.1
Somewhat aware	53	24.9	24.9	100.0
Total	213	100.0	100.0	

This table shows that 18.3% of respondents are extremely aware and another 42.7% are moderately aware of Digital-only Banking. 24.9% of respondents have somewhat awareness and 10.8% of respondents are only slightly aware. 2.8% of respondents are completely unaware of Digital-only Banking.

10. Are you aware of Peer-to-Peer Lending?

Table: 12 Are you aware of Peer-to-Peer Lending?

	Frequency	Percent	Valid Percent	Cumulative Percent
Extremely aware	37	17.4	17.4	17.4
Moderately aware	81	38.0	38.0	55.4
Valid Not at all aware	19	8.9	8.9	64.3
Slightly aware	17	8.0	8.0	72.3
Somewhat aware	59	27.7	27.7	100.0
Total	213	100.0	100.0	

This table shows that 17.4% of respondents are extremely aware and another 38% are moderately aware of Peer-to-Peer Lending. 27.7% of respondents have somewhat awareness and 8% of respondents are only slightly aware. 8.9% of respondents are completely unaware of Peer-to-Peer Lending.

Conclusion

This study investigated the awareness level of people living in Surat city regarding emerging Fintech trends. The study found that people living in Surat have a good familiarity with the emerging trends of Fintech like Insurtech, Artificial Intelligence, Robo Advisories, Blockchain, Cloud Computing, Digital-only banking, and Peer to Peer lending. The study was based on a survey attended by 213 respondents out of which 52.6% respondents were from the age group of 18 to 25 Years while 24.9% were from 26 to 40 Years. These facts provide a good chance for Fintech players to launch their services in Surat city. It shows that Surat is a good marketplace for Fintech start-ups and businesses.

References

- Abu Daqar, M., Arqawi, S., & Karsh, S. A. (2020). Fintech in the eyes of Millennials and Generation Z (the financial behavior and Fintech perception). *Banks and Bank Systems*, 20-28.
- Aggarwal, S., & Varghese, I. (2018). *Digital-Only-Banking - A Soaring wave in Consumer Banking*. Bengaluru: Infosys Limited.
- Ali, H., Zaini, M., Hashmi, H. S., Abbas, M., Shahid, M., & Tariq, U. (2018). Awareness and Knowledge of Fintech among Islamic Banking and Finance Students in Pakistan. *Islamic Banking and Finance Review*, 1-22.
- BFSI. (2022, May 13). *Top ten FinTech trends to watch out for in 2022*. Retrieved from BFSI.com: <https://bfsi.economicstimes.indiatimes.com/news/fintech/top-ten-fintech-trends-to-watch-out-for-in-2022/91512668>
- Capgemini. (2011). *Cloud Computing*. Illinois: Capgemini Financial Services.
- ClearTax. (2022, June 17). *Financial Technology*. Retrieved from ClearTax: <https://cleartax.in/g/terms/financial-technology>
- Gupta, S., & Agrawal, A. (2021). ANALYTICAL STUDY OF FINTECH IN INDIA: PRE & POST PANDEMIC COVID-19. *Indian Journal of Economics and Business*, 33-71.
- IBM. (n.d.). *Blockchain for financial services*. Retrieved from ibm.com: <https://www.ibm.com/in-en/blockchain/industries/financial-services>
- Invest India. (2022, July 4). *India - A global FinTech Superpower*. Retrieved from Invest India: <https://www.investindia.gov.in/sector/bfsi-fintech-financial-services>
- Jain, A., Ahemad, S., Khandelwal, N., & Misra, S. (2019). Fintech and Adoption Model: A User Perspective. *ADALYA JOURNAL*, 488-509.
- Kilmann, C. (2021, December 23). *Peer-to-peer lending pairs borrowers directly with individual investors willing to finance their loans*. Retrieved from BusinessInsider: <https://www.businessinsider.com/personal-finance/peer-to-peer-lending?IR=T>
- Leong, K., & Sung, A. (2018). FinTech (Financial Technology): What is It and How to Use . *International Journal of Innovation, Management and Technology*, 1-6.
- MoneyLens. (2020, January 27). *A brief history of "fintech" and why it matters*. Retrieved from MoneyLens: <https://www.moneylens.com/topics/tech/a-brief-history-of-fintech-and-why-it-matters>
- Punter, N., & Shanker, V. (2016). *Fintech in India: A global growth story*. KPMG. Retrieved from KPMG.
- PwC. (2016, July 28). *Customers in the spotlight: How FinTech is reshaping banking*. Retrieved from PwC: <https://www.pwc.com/gx/en/industries/financial-services/publications/fintech-is-reshaping-banking.html>
- Rai, K., & Sharma, M. (2019). A Study on Awareness about Digital Financial Services among Students. *SSRN*, 600-607.
- Shinde, Y. (2022, April 8). *What is Big Data Analytics in Finance?* Retrieved from DataToBiz: <https://www.datatobiz.com/blog/big-data-analytics-in-finance/>
- Tracxn. (2022, June 21). *FinTech Startups in Surat*. Retrieved from Tracxn: <https://tracxn.com/explore/FinTech-Startups-in-Surat>

BEHAVIORAL INTENTION TO INVEST IN DECENTRALIZED FINANCE LENDING PROTOCOL BY USING CRYPTOCURRENCY

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Abstract

The current annual percentage yield (APY) on bank savings and fixed deposit accounts is quite low, as we all know. Furthermore, inflation has risen above the desired level. As a result, in order to stay up with rising inflation and avoid wealth loss, we must hunt for alternative investing approaches that pay higher interest rates. As a result, this paper will discuss a new investment opportunity in the decentralised finance (DeFi) lending protocol which give more APY than banks and other institutions . Users can lend and borrow crypto assets using the DeFi lending protocols. A borrower can take out a loan via the DeFi platform more faster than banks and other institutions, which allows the lender to collect interest. The lending process is completed without the use of intermediaries from beginning to end .A coin holder uses a smart contract on the blockchain to send the tokens they want to lend into a pool. When coins are sent to a smart contract, they become available for borrowing by other users. After that, the smart contract generates tokens, which are automatically distributed to the lender. In addition to the underlying assets that were given to the smart contract, the tokens can be redeemed at a later time .The platform facilitates peerto-peer lending between network participants, eliminating the need for a third-party, increasing transparency and confidence while also ensuring security and privacy by blockchain. Lenders can earn money by lending their crypto assets through the platform. Short-term as well as long-term investors can also benefit from the platform by earning high interest rates. And we can reduce the risk by investing in a defi lending protocol based on a stable coin (USDT),(USDC). As a result, the DeFi lending protocol can benefit both borrowers and lenders. all loans made with native tokens are backed by collateral. Users who want to borrow money will be required to offer a guarantee. The guarantee in the DeFi space, unlike the centralised banking system, is in the form of cryptocurrencies that are worth more than the loan itself.As a result ,even if the borrower defaults the investor is protected by liquidating the collateral .And the capital didn't blocked like other investments.

Keywords: Decentralised finance, Lending protocol ,Cryptocurrency, Smart contracts, Blockchain

1.Introduction

Financial security in the present and the future is ensured through investments. Savings may not be sufficient in today's world to guarantee financial security. Inactive funds maintained in a savings account or locker could also be ineffective. The inactive cash in the bank account is a lost opportunity since it cannot be used to generate more income and it is unable to generate enough income to outpace inflation. The only way to achieve long-term financial freedom is through investing the money. And only wise investments can make that happen.so this paper explains about a new investment opportunitythat is invest in Defi lending protocol that gives good return than other investments .AndThe purpose of this paper is to study the factors effecting people behaviour intention to invest in DeFi lending protocol .And the factors are distrust in banks, financial literacy, APY of banks , attitude, APY of DeFi lending protocols

2.Objectives

1. To identify the factors influencing the behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency
2. To identify the need of decentralized finance

3. Literature review

DeFi lending protocols share two features: (i) they deviate from existing subjective frameworks of centralised credit assessment to codified collateral evaluation; (ii) they employ smart con-tracts to manage crypto-assets (Bartoletti et al.,2021). One of the main advantages of DLT is the elimination of a central point of failure (Igor Makarov and Antoinette Schoar.,2022)

The rise of blockchain technology has led to the emergence of a growing number of decentralized platforms that are governed less by platform owners and more through community efforts (Yan Chen et al.,2020). The technical foundation of DeFi is constituted by the underlying blockchain or ‘settlement layer’ (Schär, 2021)

With DeFi, millions of new users are now lending, borrowing, trading, saving, and more, all without the permission of companies whose interests may not always align with their customers (Adelyn Zhou.,2021). Stablecoins evolved in order to address the failure of Bitcoin and othercryptocurrencies to provide an effective monetary and payment instrument(Douglas Arner.,2020)

Cryptocurrency is in a unique position as a forerunner in a possibly transformative technology to long standing financial systems. By its very nature, it is able to fill gaps in current financial technologies and be able to help solve traditional banking problems by being a peer-to-peer system(Peter D.DeVries.,2016)

The available liquidity for loanable funds for an asset is given by the difference between the total supply and total borrows in the respective market. High liquidity allows actors to borrow funds at lower rates, while guaranteeing suppliers of funds

that funds can be withdrawn at any point in time (Lewis Gudgeon et al.,2020). DeFi lending platforms also bring together savers and prospective borrowers, but without a central intermediary such as a bank. Activity takes place on platforms – or collections of smart contracts – thatadminister loans following pre-specified rules.(Sirio Aramonte et al.,2022). As DeFi grows in scale and scope and becomes more connected to the real economy,its vulnerabilities might undermine both crypto and formal nancial sector stability (Aramonte et al.,2021)

In DeFi, where there is no such centralized institution to take on these risks and identities of participants are unknown, mechanisms need to be redesigned so that suppliers and borrowers of capital can still reach an agreement, and this is the role of the smart contracts in a protocol(Kanis Saengchote.,2022)

Lending pools are decentralized applications which allow mutually untrusted users to lend and borrow crypto-assets.These applications feature complex, highly parametric incentive mechanisms to equilibrate the loan market (Massimo Bartoletti et al.,2020)

To borrow from the protocol, users first have to deposit funds, which areused as collateral for the borrow position. In that sense, a borrower mustfirst and foremost also be a depositor. The Compound protocol computes andupdates borrowing and lending interest rates for each asset automatically andcontinuously, based on the amount deposited and locked, as well as the amountborrowed (Perez et al., 2021).

In March 2020, the Supreme Court of India passed the verdict, revoking the RBI ban on Cryptocurrency trade. Now crypto currency trading is legal in India.(Mohammed Mubarak.,2021).Cryptocurrency represent valuable and intangible objects which are used electronically in different applications and networks such as online social networks, online social games, virtual worlds and peer to peer networks. The use of virtual currency has become widespread in many different systems in recent years.

(Shailak Jani.,2018)

Despite huge investment and a large number of crpto owners around the world all The coutries have different regulatory framework or no regulations for Cryptocurrency.Few nations have made it a legal tender whereas few are still Waiting are pondering upon on what regualtions to bring for cryptocurrency Exchange and trade.(Pooja Pandey.,2021)

Cryptocurrencies are still in their infancy stage and people who are not really techno-savvy, have not realized its potential. In the absence of such awareness, the laws of the same are also difficult to propose or even pass. The legislators lack that technical insight and have not been able to realize the need to enact (Akanksha singh and Sharan chawla.,2019)

4. Research Methodology

The primary purpose of this study was to identify the elements that influence people's behaviour intention to invest indecentralized finance lending protocol by using cryptocurrency, as well asto identify the need of decentralized finance. This project's research method relied on primary data collected fromrespondents using a widely disseminated questionnaire .The study's participants are devoted participants in the cryptocurrency and DeFi lending groups on social media, including communities or groups that are familiar with or use DeFi lending protocols, as well as communities related to capital markets and cryptocurrency trading and communities related to investments on platforms like Facebook, Whatsapp, Instagram, Clubhouse, and Telegram etc. Simple random sampling was used to choose 134 repliesfrom the population for investigation.Individuals from various sectors with high knowledge, those who utilise DeFi lending protocols, those involved in the capital market, investors, traders, and those knowledgeable about cryptocurrencies and other digital assets make up the population.Probability sampling refers to the selection of a sample from a population, when this selection is based on the principle of randomization, that is, random selection or chance.Simple random sample is a type of probability sampling intended to offer an unbiased representation of a group. Since every member of the population has an equal chance of being chosen, it is seen as a fair method of selecting a sample from a larger population and it will increase the accuracy and quality of research. This study was solely based on primary sources. Theprimary data was collected utilising a distributed questionnaire. The questionnaires werewritten and distributed via email and the internet. The poll has 20 valid questions, including demographics, variables influencing behaviour, and the intention to invest in decentralized finance lending protocol by using cryptocurrency

5. Data Analysis

5.1 Distrust in banks and behavioural intention to invest

Hypothesis 1

Ho: Distrust in banks have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

H1: Distrust in banks have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

A regression analysis was carried out to investigate whether there is an impact of distrust in banks on individual behavioural intention to invest in decentralized finance lending protocol by using cryptocurrency

Table 5.1 Model parameters(individual behavioural intention)

Inference

The results of the regression indicated that the model explained 2.5 % of the variance as R² value of the analysis is .025

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.324	1	1.324	3.194	.076 ^b
	Residual	51.392	124	.414		
	Total	52.716	125			

Equation of the model (Behavioural Intension):

$$\text{Behavioural Intension} = 3.381 + .095 * \text{Distrust in banks}$$

Therefore, the null hypothesis that : Distrust in banks have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency is accepted

5.2 Financial literacy and behavioural intention to invest

Hypothesis 2

Ho: Financial literacy have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

H1: Financial literacy have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.487	1	.487	1.157	.284 ^b

Residual	52.229	124	.421		
Total	52.716	125			

A regression analysis was carried out to investigate whether there is an impact of Financial literacy on individual behavioural intention to invest in decentralized finance lending protocol by using cryptocurrency

Table 5.2 Model parameters(individual behavioural intention)

Inference

The results of the regression indicated that the model explained 0.9% of the variance as R2 value of the analysis is .009

Equation of the model (Behavioural Intension):

$$\text{Behavioural Intension} = 3.852 + .051 * \text{Financial literacy}$$

Therefore, the null hypothesis that : Financial literacy have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency is accepted

5.3 APY of banks and behavioural intention to invest

Hypothesis 3

Ho: APY of bank have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

H1: APY of bank have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

A regression analysis was carried out to investigate whether there is an impact of APY of bank on individual behavioural intention to invest in decentralized finance lending protocol by using cryptocurrency

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.590	1	13.590	43.071	.000 ^b
	Residual	39.126	124	.316		
	Total	52.716	125			

Table 5.3 Model parameters(individual behavioural intention)

Inference

The results of the regression indicated that the model explained 25.8 % of the variance as R2 value of the analysis is .258

Equation of the model (Behavioural Intension):

Behavioural Intension = 2.116+.409* APY of bank

Therefore, the alternative hypothesis that : APY of bank have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency is accepted

5.4 Attitude and behavioural intention to invest

Hypothesis 4

Ho: Attitude have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

H1: Attitude have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

A regression analysis was carried out to investigate whether there is an impact of Attitude on individual behavioural intention to invest in decentralized finance lending protocol by using cryptocurrency

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.019	1	32.019	191.833	.000 ^b
	Residual	20.697	124	.167		
	Total	52.716	125			

Table 5.4 Model parameters(individual behavioural intention)

Inference

The results of the regression indicated that the model explained 60.7 % of the variance as R² value of the analysis is .607

Equation of the model (Behavioural Intension):

Behavioural Intension = 1.518+.581* Attitude

Therefore, the alternative hypothesis that : Attitude have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency is accepted

5.5 APY of DeFi lending protocol and behavioural intention to invest

Hypothesis 5

Ho: APY of DeFi lending protocol have no positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

H1: APY of DeFi lending protocol have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency

A regression analysis was carried out to investigate whether there is an impact of APY of DeFi lending protocol on individual behavioural intention to invest in decentralized finance lending protocol by using cryptocurrency

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.495	1	25.495	116.140	.000 ^b
	Residual	27.221	124	.220		
	Total	52.716	125			

Table 5.5 Model parameters(individual behavioural intention)

Inference

The results of the regression indicated that the model explained 48.4 % of the variance as R2 value of the analysis is .484

Equation of the model (Behavioural Intension):

Behavioural Intension = 1.483+.588* APY of DeFi lending protocol

Therefore, the alternative hypothesis that : APY of DeFi lending protocol have positive impact on behaviour intention of people to invest in decentralized finance lending protocol by using cryptocurrency is accepted

6. Findings and suggestion

The study makes a contribution by emphasising the need for new investment options and by demonstrating that DeFi lending protocol is a superior investment opportunity than many others for avoiding wealth loss, keeping up with growing inflation, and generating higher returns. Data analysis reveals that APY of banks, attitude, and APY of DeFi have positive impacts on people's behaviour intentions to invest in decentralised finance lending protocol by using cryptocurrency, while distrust in banks and financial literacy have no positive effects on people's behaviour intentions to invest in decentralised finance lending protocol by using cryptocurrency. Low return, centralization, and a lack of transparency are some of the biggest hurdles the investment business is now facing, but the DeFi lending protocol will overcome all these obstacles and provide greater return.. This study indicated that customers are dissatisfied with the bank's returns and desire fresh opportunities, which DeFi lending methods can provide. Although cryptocurrency is not recognised as legal tender in India, the Union Budget 2022 proposed classifying it as a virtual digital asset (VDA) and charging a 30 percent tax and a 1 percent tax deducted at source (TDS) on the profit, ensuring that investments and DeFi lending protocols would not be hindered. The finance minister has also suggested that the RBI start issuing Digital Rupee in 2022–2033, using blockchain and other technologies. Therefore, in the future, Defi lending protocols and cryptocurrencies will become more well-known, and it will be difficult to outlaw cryptocurrencies due to their rising popularity and significant financial value.

7. conclusion

Investments in DeFi lending techniques yield excellent returns because they are a new, rapidly expanding field. The platform facilitates peer-to-peer lending between network participants, eliminating the need for a third-party, increasing transparency and confidence while also ensuring security and privacy by blockchain. And all the loans made with native tokens are backed by collateral. Users who want to borrow money will be required to offer a guarantee. The guarantee in the DeFi space, unlike the centralized banking system, is in the form of cryptocurrencies that are worth more than the loan itself. As a result, even if the borrower defaults the investor is protected by liquidating the collateral. So here there is no need of any monitoring authority because it is highly secured by smartcontract on the blockchain. Money held in a savings account or locker that is inactive could potentially be useless. It is a missed opportunity that the bank account's idle cash cannot be leveraged to generate additional revenue or enough income to keep up with inflation. As a result, we must seek for additional investment opportunities, which will be made possible by the DeFi lending paradigm, which grants everyone financial independence.

References

- Igor Makarov., Antoinette Schoar (2022 march) Cryptocurrencies and Decentralized Finance
- Jiahua Xia(2022 January)From banks to DeFi: Evolution of the lending market
- Yan Chen.,Igor Pereira.,Pankaj Patel (2020 february)Decentralized Governance of Digital Platforms
- Adelyn Zhou.,(2021 july) DeFi Is Ready to Disrupt Fintech
- LewisGudgeon.,(2020 june) DeFi Protocols for loanable funds:interest rates,liquidity and market efficiency
- Sirio Aramonte.,Sebastian Doerr.,Wenqian Huang.,Andreas Schrimpf (2022 June)DeFi lending: intermediation without information?
- Michael Darlin.,Georgios Palaiokrassas.,Leandros Tassioulas (2022 june)Debt-financed collateral and stability risk in the defi ecosystem
- Dirk Zetsche.,Ross Buckley.,Douglas W. Arner (2020 january) Decentralized finance
- Kanis Saengchote(2022 Feb) Decentralized lending and its users:Insights from Compound
- Douglas Arner.,Raphael Auer.,Jon Frost(2020 November} Stablecoins: risks,potential and regulation
- Massimo Bartoletti., J. Chiang., Alberto Lluch-Lafuente.,(2020 December) Lending Pools in Decentralized Finance
- Mohammed MubarakA (2021 August) study on Cryptocurrency in India
- ailak Jani (2018 April) The growth of cryptocurrency in India: it's challenges and Potential impacts on legislation
- Pooja Pandey(2021 November) A comparative study of Cryptocurrency market of India with the global market
- Akanksha singh and Sharan chawla(2019)Cryptocurrency Regulations: Legal Issues And challenges

BEHAVIOUR OF GEN-Y TOWARDS CRYPTO-CURRENCY IN INDIA: AN EXPLORATORY STUDY

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Abstract

The basic aim of this current paper is to present a research study on Generation Y's awareness and perceptions of the new technology or new kind of digital currency known as Cryptocurrency. We can witness a considerable change in the methods of sending and receiving payments in this period. The number of payment methods has increased as a result of technological advancements and regulation changes. Cryptocurrencies were created with the intention of serving as an alternate payment method for online commerce. This cutting-edge system uses blockchain technology and encryption to safeguard its exchanges, control the growth of a particular type of cryptocurrency, and keep record of all transactions throughout the network. Cryptocurrencies, on the other hand, have yet to be generally embraced by businesses and consumers since they are currently too volatile to be used as a payment mechanism. Cryptocurrencies exist all over the world, but it is still unclear whether they will ever achieve currency status or whether they will stay a component of an investment portfolio. Millennials account for a quarter of the world's population. Given the magnitude of the millennial generation, it has a significant impact on global social and economic growth, and India is no exception. Despite government and regulatory scepticism of cryptocurrencies, we've discovered that millennials are becoming more aware of them and want to invest in them. As a result, understanding their perspectives is critical for any business or governing body. It's critical to comprehend Indian millennials' attitudes and mindsets regarding various asset classes, with a particular focus on Cryptocurrencies. Given recent changes in the financial markets, this study delivers evidence and identifies aspects that could be determining determinants of risk attitude for millennial retail investors. Prior knowledge of the level of adoption and spread of cryptocurrencies as a new asset among Indian millennials will aid in the development of a policy framework that is appropriate.

Keywords: *Crypto-Currency, Generation Y, Awareness, Perception, Digital Currency.*

1.0 Introduction

"Digital" is a complicated word in both the international and Indian contexts. "Digital" is defined as "Relating to, using, or data storage or presented in the form of binary code; Using or relating to the use of computer technology" by the Oxford English Dictionary. A nation nowadays is only considered to be "developed" if it actively promotes digitization. Digitalization is the process of integrating digital technology into daily life (Chauhan, n.d.). Blockchain technology has drawn interest for a number of applications across multiple industries, despite being first developed for a payment system. (Nakamoto, 2008). Blockchains are immutable, decentralised, global systems that, based on how they are utilised, may offer varied degrees of anonymity, trust, and the capacity to be used for multi-party transactions. Numerous papers have discussed various facets of blockchain and cryptocurrency technology, uses, and research potential (Chen & Farkas, 2019).

Digital payment methods based on peer-to-peer networks and end-to-end encryption known as cryptocurrencies encrypt data using a public-private key mechanism. Historically, money

has been backed by governments or other regulatory authorities and used as a store of value, a means of exchange, and a unit of measurement (Bhilawadikar & Garg, 2020). The realm of cryptocurrency is impervious to the traditional methods used by governments to regulate transactions and interfere. This was a crucial factor in the Reserve Bank of India's decision to forbid banks and other regulated institutions from facilitating decentralised transactions after digital currencies were used fraudulently by India in April 2018. Since the RBI's ban on trading bitcoin was removed by the Supreme Court in March 2020, it is now legal. When the restriction is lifted, a person can resume trading cryptocurrencies, but only after all necessary measures have been performed (Gowda & Chakravorty, 2021). In this environment, numerous international financial institutions started working on the best methods for advancing financial services in the current systems, innovating new products and services in these systems, a few years back. Finally, the technology "Blockchain" was the innovation. Technology known as "Blockchain" is the newest craze in financial services systems (Madakam & Kollu, 2020).

A recent development in retail banking services is online banking. With online banking, customers can use a number of services like account requests, multi transfers, utilities bill payment, check book requests, etc. without having to physically go to the branches, all through a telecom network or the internet. As a result, more and more banking businesses are thinking about shifting their activities from the real to the digital marketplace (online technology). For economies that are expanding, information is currently the most crucial success component. The most challenging issues for banks to solve in online commerce are faith, privacy, and protection. A future challenge for banks will also be to gain and keep their clients' trust, particularly in internet banking (Omar et al., 2011). In past studies, surveys, web searches, interviews, and book searches were used to identify risk and other hurdles to the adoption of this technology and cryptocurrencies. Prior research on individual perception of risk was conducted while e-Commerce was still in its infancy. To comprehend risk, one must comprehend bitcoin usage from the user's point of view. The operation of a node in a distributed network enables peer-to-peer cryptocurrency transactions, but many users opted to utilise local currency and maintain their "wallets" (accounts) in centralised platforms that facilitate trading between buyers and sellers (Chen & Farkas, 2019).

The blockchain generated a lot of enthusiasm when it first emerged, with many of its supporters considering it to be one of the most significant modern technologies. According to research, over 43% of Millennials swiftly adopted cryptocurrencies, sparking the creation of hundreds of new forms of money. Prices fluctuate as a result of shifting investor attitudes, particularly those of the millennial age, which has always invested actively in new financial technologies (Patil, 2019). In today's society, major markets are beginning to accept cryptocurrencies. Elon Musk said in February 2021 that Tesla will be the first carmaker to welcome Bitcoin as payment for its vehicles and that he had paid \$1.5 billion to acquire Bitcoin. This demonstrates the progress Bitcoin has made toward becoming a more conventional money, yet despite this advancement, there are still sceptics and consequences for the widespread adoption of Bitcoin and other cryptocurrencies (McMorrow & Esfahani, 2021). The Millennial Generation, which generally corresponds to people born between 1977 and 1995, is recognised for a pattern of behaviour that are characterised by their quick acceptance of technology and disloyalty to the current world order. They are the age that started the global technological revolution, so they are used to experimenting with new ideas and have rapidly accepted cryptocurrencies despite security worries and a lack of official backing (Patil, 2019).

It is challenging to gauge how the general public views and accepts the use of cryptocurrencies because certain governments, businesses, and investors are beginning to

accept it while others are outright rejecting it. Therefore, it is essential to appreciate how people generally view cryptocurrencies in order to determine the potential adoption and profitability of this developing business. As a result, this study will review the data on the acceptability and use of latest tech and cryptocurrencies.

2.0 Literature Review

In order to assess the purpose of this study and establish the necessary background information to create research objectives, it will examine recent review and give an overview of conceptual research. The researcher will read books and articles about how new technologies, particularly cryptocurrencies, get accepted and adopted.

The distinctive viewpoint of millennials on banking and internet investment presents many questions and opportunities for businesses while assuring that international financial markets are always evolving (Patil, 2019). In contrast to prior generations X, members of generation Y, also known as millennials, have come under fire for their choices regarding how to find better and more practical answers to their problems. Due to the Stock Market Crash 2008 and the continued increase in global inflation, the present generation has come to distrust the existing financial opportunities (Nguyen, 2017). On the other hand, millennials find cryptocurrencies to be extremely enticing and have embraced them quickly, contributing to their amazing surge in value in less than a decade due to their faith in technology and anticipation of the blockchain-based cryptocurrency's eventual climb (Patil, 2019).

The generation of persons born between the years of 1980 and 1990 is known as Generation Y or the millennial generation. However, the term "millennials" quickly gained acceptance as a way to refer to the Generation Y population (Downing, 2006). Especially among millennials, there is widespread mistrust of financial institutions as a result of the financial crisis and market instability (Martin, 2018). The conduct of millennials is very different from that of the previous generation. The fact that millennials behave differently than earlier generations does present a greater difficulty for banks when dealing with this group. This is illustrated by the fact that millennials place greater value on socially conscious products and workplaces than they do on personal success indicators like money (Downing, 2006).

The history of fintech since the early 1900s is covered in a paper by (Moshirian et al., 2019), which also shows how the advancement of financial technology has impacted 20th-century global development. (Nadeem, 2017) Describes bitcoin as "a cryptographic, software networked, complexly built, high energy consuming, permission-less and programmable crypto-currency" in his paper "Bitcoin's Pygmalion Effect." The study illustrates how fintech solutions have emerged specifically to address market issues. The goals of fintech businesses are distinctly stated, along with how they vary from conventional financial institutions. The blockchain is typically more adjustable than any other existing finance company or fintech companies since the engagement of the financial institution is not required. Without using a middleman, consumers can simply invest in any kind of cryptocurrency (Nguyen, 2017). As a public transaction log, blockchain was utilised in 2008 to introduce the world to Bitcoin, the first cryptocurrency (Rauchs & Hileman, 2017). People were drawn to bitcoin because it was a ground-breaking innovation, but those who worked primarily in technology were also drawn to the blockchain idea (Rauchs & Hileman, 2017). Every new block in the Bitcoin network is built upon monetary exchanges and added to an expanding chain (Martin, 2018).

Millennials are anticipated to be the main audience that determines whether bitcoin technology succeeds or fails, as seen by their engagement with the newest and most innovative technological advancements (Ross, 2016). According to (Patil, 2019), who made this claim in his report, lumping the Millennial generation under a single, collective definition would not adequately provide the full picture, particularly as a signal if they will ever apply their capital for investment like in virtual currency, a sector that is still growing, possibly

exponentially. Millennials will largely favour cryptocurrencies and other potential blockchain-based technologies in the future, according to (Patil, 2019), who concludes his analysis. However, with the rise of cryptocurrencies, millennials have discovered a more regarded route to invest in, which might have a significant impact in the future (Andriole, 2018). The study by (Andriole, 2018) highlights the problems that must be properly resolved in order to control the confidentiality and financial protection concerns that subsist in the world of cutting-edge technology like cryptocurrencies. Despite the dangers and problems, the author argues that rather than outright outlawing these technology solutions, as many nations have already done, organisations like banks and the stock market could come up with innovative ways to integrate them. It should be considered that the relationship between cryptocurrencies and millennial thinking may soon become decisive, and that paper currency may ultimately become completely useless over time (Girasa, 2018).

As the bitcoin market has shown in the short time it has existed, radical innovation can lead to the creation of new markets and extraordinarily high growth rates (McMorrow & Esfahani, 2021). Therefore, it is crucial to comprehend how customers respond to and perceive radical innovation in order to advertise proposed changes in a way that appeals to consumers while also comprehending their intentions and driving forces. Over time, various conceptual frameworks for understanding users' approval or adoption of novel technologies and significant change have been established. In the past, models of technology acceptance tended to emphasise views and utility (McMorrow & Esfahani, 2021).

There are research on the differences between genders' acceptance of new technology, and it is often observed that men are more self-assured in their aptitude to use newer technology than women are (Vekiri & Chronaki, 2008). Therefore, it becomes important to comprehend how investors perceive different demographics.

3.0 Research Questions?

- (i) What is the present awareness level of the prospects about crypto-currency?
- (ii) Are prospects willing to invest in crypto-currency?
- (iii) What are the factors influencing the people about crypto-currency?

4.0 Objectives of the study

- (i) To find out awareness about cryptocurrency among the millennial generation.
- (ii) To find out willingness to invest in cryptocurrency among the millennial generation.
- (iii) To find out the important factors about cryptocurrency influencing the millennial generation.

5.0 Hypotheses of the study

- (i) There is no significant relationship among respondents with different age group & knowledge related to cryptocurrency.
- (ii) There is no significant relationship between occupation and knowledge related to cryptocurrency.
- (iii) There is no significant difference across important factors in cryptocurrency & Gender.

6.0 Research Design

- **Sampling Design** - The current study is a descriptive type field study that aims to determine people's awareness of cryptocurrencies and link it with their age, gender, and occupation.
- **Sampling Frame** - Choosing the components that can be chosen during the sample process is known as the sampling frame. The 97 respondents in this study are from different cities in the state of Odisha.

- **Sampling Techniques** - The entire universe is represented using a sampling technique. Data were gathered randomly for the current study's objectives. For choosing a sample for the current investigation, convenience sampling approaches were used.
- **Data Collection Methods** - Questionnaires were the primary instruments utilised to gather the first data. Semi-structured interviews or conversations (with experts) were utilised in the explanatory research prior to the creation of the questionnaire to determine the most crucial aspects that may be concentrated as supplemental resources and to determine the effectiveness of the study. The questionnaire methodology is the main way of gathering data from a population with a sample size of 97. The survey was created and sent to multiple recipients via email and WhatsApp.
- **Data Analysis and Interpretations** - Descriptive and inferential statistical techniques are used to analyse the collected data. They are also evaluated using the ANOVA, Chi-square, and SPSS statistical packages.
- **Research Limitations**-The research has limitations of resource and sample size.

7.0 Descriptive Analysis

1. Gender Profile:

In this study, it can be seen that most of the respondents are male compared to females. As 58% of the total population is male respondents but it can also be seen that there is not much difference between the response level of male and female.

2. Occupation Profile

In the current study mostly the data as collected from the millennial generation shows that majority of the individuals of the particular generation is from self employed section of occupation followed by salaried individuals and then professionals. This could convey the meaning that mostly self employed individuals have shown interest in technological transaction.

3. Knowledge about cryptocurrency

From the above-mentioned chart, it can be noted that majority of the respondents have general amount of knowledge about the term crypto-currency, which shows that people are almost aware regarding crypto-currency but it also depicts that only 2% have high amount of knowledge. So, the concerned organisations should try to create more campaigns or try other ways in order to create sufficient knowledge about crypto-currency among the individuals in order to create more investors dealing with crypto-currency.

4. Willingness to Invest

The above pie chart shows the distribution on the respondents willingness to invest in crypto-currency and the result shows that half the total population is slightly willing to invest in crypto-currency and 41% are still not really willing to invest, one of the reasons may be because majority of the respondents still do not have high amount of knowledge regarding the transactions in crypto-currency due to which people are not eager to undergo with such transactions.

5. Preference Profile

From the above chart, it is clear that bitcoin is the most famous crypto-currency among the individuals of Odisha. This shows other types of crypto-currency has still not gained popularity among the investors. A Bitcoin is a virtual currency first introduced in the year 2008 by an Anonymous group called Satoshi Nakamoto (Rastogi & Kushwaha, 2019).

8.0 Inferential Statistics

1. Chi-Square Test

Chi-Square test between Gender and Knowledge of crypto-currency.

- H0 - There is no significant relationship among gender and Knowledge related to cryptocurrency.
- H1 - There is a significant relationship among gender and Knowledge related to cryptocurrency.

Table 1.1: Cross tabulation

		Knowledge about crypto-currency			Total
		General amount of knowledge	Average amount of knowledge	High amount of knowledge	
Gender	1	22	12	22	56
	2	18	7	16	41
Total		40	19	38	97

Sources: Compiled from collected data

A cross tabulation is done on two variables gender and knowledge about crypto-currency. In the gender part 1 is denoted to male respondents and 2 is for female respondents where it can be seen that mostly male respondents have knowledge about crypto-currency as compared to females. There are research on the differences between genders' acceptance of new technology, and it is often observed that men are more confident in their aptitude to use new technology than women are (McMorrow & Esfahani, 2021).

Table 1.2: Chi-Square table between Gender and Knowledge about Crypto-currency

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	0.352	2	0.839
Likelihood Ratio	0.355	2	0.838
Linear-by-Linear Association	0.069	1	0.792
N of valid cases	97		

Sources: Compiled from collected data

Interpretation - The results of the chi-square test used to determine the link between gender and crypto-currency knowledge are displayed in the table above. Since the p-value of the test statistics is bigger than our significance value, which is 0.05, and the value of the test statistics is 0.352, we cannot reject the null hypothesis.

2. ANOVA TEST

ANOVA test between occupation and knowledge about crypto-currency.

- H0 - There is no significant relationship between occupation and knowledge related to cryptocurrency.
- H1 - There is significant relationship between occupation and knowledge related to cryptocurrency.

Table 1.3: ANOVA table between occupation and knowledge of crypto-currency

	Sum of squares	df	Mean square	F-value	Sig. value
Between Groups	0.056	1	0.056	0.069	0.794
Within Groups	77.902	95	0.820		
Total	77.959	96			

Sources: Compiled from collected data

Interpretation - The results of an ANOVA test to determine the association between age and bitcoin awareness are displayed in the following table. The test statistic value is 0.069, and the associated p-value is $p=0.794$. Since the p-value is higher than our significance level of 0.05, which is set at 95%, we accept the null hypothesis.

3. T-Test

T-test across important factors in cryptocurrency & gender.

- H0 - There is no significant difference across important factors in cryptocurrency & Gender.
- H1 -There is a significant difference between important factors in cryptocurrency & Gender.

Table 1.4: One-Sample t-Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Gender	28.218	96	.000	1.423	1.32	1.52
Factors influencing cryptocurrency adoption. With 1- Strongly disagree, 2- disagree, 3- netural, 4- agree and 5- Strongly agree. [Faster transaction process]	47.064	96	.000	4.021	3.85	4.19
Factors influencing cryptocurrency adoption. With 1- Strongly disagree, 2- disagree, 3- netural, 4- agree and 5- Strongly agree. [More secure storage methods]	43.542	96	.000	3.763	3.59	3.93
Factors influencing cryptocurrency adoption. With 1- Strongly disagree, 2- disagree, 3- netural, 4- agree and 5- Strongly agree. [Simplifies procedure for bitcoin purchase]	55.450	96	.000	3.979	3.84	4.12
Factors influencing cryptocurrency adoption. With 1- Strongly disagree, 2- disagree, 3- netural, 4- agree and 5- Strongly agree. [Major retail websites accepting bitcoin]	27.263	96	.000	3.608	3.35	3.87

Factors influencing cryptocurrency adoption. With 1- Strongly disagree, 2- disagree, 3- neutral, 4- agree and 5- Strongly agree. [Major banks accepting proceeds of sales]	35.333	96	.000	3.608	3.41	3.81
Factors influencing cryptocurrency adoption. With 1- Strongly disagree, 2- disagree, 3- neutral, 4- agree and 5- Strongly agree. [More stable price]	30.643	96	.000	3.649	3.41	3.89

Sources: Compiled from collected data

Interpretation - From the table, it can be observed that the p-value 0.00 are less than the level of significance 0.05. Therefore, reject the null hypothesis.

9.0 **Major Findings**

- Out of 97 respondents, 55% people have general amount of knowledge about cryptocurrency.
- Bitcoin is the most preferred exchange to buy cryptocurrency.
- Male respondents have more knowledge of cryptocurrency as compared to females.
- Only 2% population have high amount of knowledge about investment in cryptocurrency, which shows there is insufficient spread of education and awareness regarding crypto-currency in the demography.
- Half of the population of the study says that they are slightly willing to invest in crypto-currency. So, it could be increased if proper measures are taken into account by the designated organisations.
- It was found that all the factors that were considered for the study have an influence on the gender of the millennial groups to invest in crypto-currency

10.0 **Conclusion**

In fact, Indians are familiar with the idea of cryptocurrencies. Since Bitcoin remains the most popular cryptocurrency even after nine years since its launch, security and general acceptability are considerably more crucial than usability and other uses for cryptocurrencies and blockchain technology. The majority of the less informed respondents believe that cryptocurrencies are connected to unlawful activity. However, we discover a sizable gap between the anticipated and actual use of cryptocurrencies. Knowledgeable people are more inclined to possess and use cryptocurrencies and blockchain in particular because they have more faith in these phenomena. This result suggests that education is essential for the widespread adoption of cryptocurrencies. One way to help identify the populations that need to be protected against unregulated investment proposals is to know that bitcoin aficionados tend to be younger, male, well-educated, and wealthy. However, it is important to educate those sectors of the population who are sceptical and hold false views about the principal applications of cryptocurrencies in order to encourage the adoption of these technologies and associated concepts, such as central bank digital currency.

References

- Andriole, S. J. (2018). Governing and Piloting Emerging Technologies. *IT Professional*, 20(3), 83–85.
- Bhilawadikar, V. S., & Garg, E. (2020). Investment attitude of millennials towards cryptocurrencies. *Social Business*, 10(4), 383–410.
- Chauhan, R. (n.d.). *Crypto Currency: Awareness Among New Investors. New Radical Approach in Interdisciplinary Research.*
- Chen, L.-C., & Farkas, D. (2019). Individual Risk Perception and Choice using Cryptocurrency for Transactions.
- Downing, K. (2006). Next generation: What leaders need to know about the millennials. *Leadership in Action: A Publication of the Center for Creative Leadership and Jossey-Bass*, 26(3), 3–6.
- Girasa, R. (2018). *Regulation of cryptocurrencies and blockchain technologies: national and international perspectives.* Springer.
- Gowda, N., & Chakravorty, C. (2021). Comparative study on cryptocurrency transaction and banking transaction. *Global Transitions Proceedings*, 2(2), 530–534.
- Madakam, S., & Kollu, S. (2020). *Blockchain Technologies Fundamentals–Perceptions, Principles, Procedures and Practices.* Prajnan, 48(4), 345–368.
- Martin, T. H. (2018). *Investing in Millennials.*
- McMorrow, J., & Esfahani, M. S. (2021). An Exploration into People’s Perception and Intention on using Cryptocurrencies. *HOLISTICA–Journal of Business and Public Administration*, 12(2), 109–144.
- Moshirian, F., Susantono, B., & Yu, R. (2019). Challenges and Opportunities Associated with Financial Technology in the 21st Century. Available at SSRN 3337918.
- Nadeem, M. (2017). Bitcoin’s Pygmalion Effect: Social Entrepreneurs are a Bit-Curious in Marketing a Special Kind of Property! *International Journal of Academic Research in Business and Social Sciences*, 7(12).
- Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. *Decentralized Business Review*, 21260.
- Nguyen, V. L. (2017). Investment risk profile of the millennial generation.
- Omar, A., Sultan, N., Zaman, K., Bibi, N., Wajid, A., & Khan, K. (2011). Customer perception towards online banking services: empirical evidence from Pakistan. *Journal of Internet Banking and Commerce*, 16(2).
- Patil, P. S. (2019). *Attitude of the millennial generation towards cryptocurrency.* Dublin Business School.
- Rastogi, V., & Kushwaha, P. (2019). Success and failure of digital money and virtual money: case of cryptocurrency-bitcoin. *IME Journal*, 13(1), 74–81.
- Rauchs, M., & Hileman, G. (2017). *Global cryptocurrency benchmarking study.* Cambridge Centre for Alternative Finance Reports.
- Ross, E. S. (2016). Nobody puts blockchain in a corner: The disruptive role of blockchain technology in the financial services industry and current regulatory issues. *Cath. UJL & Tech*, 25, 353.
- Vekiri, I., & Chronaki, A. (2008). Gender issues in technology use: Perceived social support, computer self-efficacy and value beliefs, and computer use beyond school. *Computers & Education*, 51(3), 1392–1404.

COINTEGRATION RELATIONSHIP BETWEEN S&P BSE SENSEX AND S&P BSE FMCG STOCK PRICES IN INDIA

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Abstract:

Among the Indian economy Fast Moving Consumer Goods (FMCG) is the fourth – largest sector which grew by 16% in the year 2021. The increase in the predominantly usage of staples and progress in merchandise values nevertheless occurs in the national lockdowns grew by 16%. According to the CRISIL assessments the FMCG segment's income evolution will be two-fold from 5% to 6% in the Financial Year 2021 to 10% to 12% in the Financial Year 2022. The present study is focused on the long run relationship between S&P BSE Sensex daily stock prices and S&P BSE FMCG daily stock prices from April 1st 2015 to 31st March 2022 which is collected from the historical data of BSE India. The study employs econometric models to analyse the data. Time Series Plot depicts the random walk pattern of the series and Unit Root Test the stationarity of the series. Johansen cointegration model shows that there is a long run relationship exist between S&P BSE Sensex daily stock prices and S&P BSE FMCG daily stock prices.

Keywords: *S&P BSE Sensex, FMCG, Unit Root Test, Cointegration*

INTRODUCTION

Fast moving consumer goods are the quarter principal segment in the economy of India. The three foremost segments include food and beverages which records 19%, healthcare 31% and household and personal care 50%. The FMCG market was driven by the upsurge in countryside consumption of goods. The municipal sections subsidizes to around 55% of the income whereas the rustic section records for 45%. Notwithstanding the countrywide lockdowns the FMCG sector in the current year nurtured by 16%. India is one of the major frugalities in the world in relations of procuring control and partakes a robust middle-class base of 300 million. The whole distinct outlay along with the huge inhabitant's base is an alternative feature that brands India into one of the prime FMCG markets. Conferring to CRISIL Ratings the FMCG segment's returns two-folded from 5-6% to 10-12% in FY 21-22. The BSE Sensex is used to detect the complete development, expansion of specific businesses, ups and downs of the Indian economy by the depositors. The S&P BSE Fast Moving Consumer Goods is intended to deliver stockholders with a yardstick concern encompassed in the S&P BSE AllCap that are off the record as affiliates of the fast-moving consumer goods sector. Here the daily stock prices of S&P BSE Sensex and S&P BSE FMCG from April 1st 2015 to 31st March 2022 are collected from the historical data of BSE India to study the long run relationship between stock prices.

REVIEW OF LITERATURE

Malhotra (2014), analysed that FMCG goods are low turnover goods and consequently retailed in big numbers. It studied in what way downturn disturbs the demand for fast moving Consumer Goods and the explanations for these variations. It is compulsory for the manufacturers or the concerns to upsurge the reserves in these products and clients are fascinated near them. Consumers turn out to be its brand representatives in lieu of superstars. **Zhao.et.al (2020)**, explored that nonlinear cointegration between Chinese mainland stock markets and Hong Kong stock market from 1998 January to 2014 December. Using linear

kernel smoothing method and Monte Carlo experiments studied that Shanghai Stock Index (SHSI) and Shenzhen Component Index (SZCI) can affect Hang Seng Index (HSI).

Rajalakshmi (2020), studied that in the local marketplace FMCG are commonly lesser income products and are traded in bulky measures. It studied that in what manner the brand worth can be recovered as various brands are obtainable for the similar groups of goods in the market. The key aspect that prejudiced the buying and usage of a variety of facial cream was value, trailed by excellence. Ponds, Fair & Lovely and Fairever are highest used facial cream brands.

Ali (2013), analysed the long run connotation between Pakistan's exports and imports over the period from 1972 to 2012. The outcomes of both Engle and Granger and Johansen cointegration disclosed that between the two variables a long run relationship exist. The error correction model validated that both of the variables congregate towards the long run equilibrium forsoothing the global trade equilibrium.

Khan.et.al (2019), investigated that in China for the period 1980 to 2017 the upshot of macroeconomic variables on the exchange rate USD/CYN. The long-run ARDL bounds test designated that GDP growth and trade have an optimistic result on the exchange rate USD/CNY and interest and inflation rates have a undesirable outcome on the exchange rate. To bring about justifiable pecuniary progress for an extensive period with its trading partners the officials of the Chinese government ought to implement dynamic economic and fiscal procedures to regulate the fewer unpredictable and creative exchange rate.

OBJECTIVES OF THE STUDY

- To examine the Stationarity of the S&P BSE Sensex and S&P BSE FMCG daily stock prices.
- To analyze the long run relationship between S&P BSE Sensex and S&P BSE FMCG daily stock prices.

METHODOLOGY OF THE STUDY

The sample selected for the study are S&P BSE Sensex daily stock prices and S&P BSE FMCG daily stock prices. The analysis is based on time series data of daily stock prices of S&P BSE Sensex and S&P BSE FMCG traded in BSE, from April 1st 2015 to 31st March 2022 which is collected from the Historical Data of BSE India. The study makes use of some econometric methods to carry out the empirical analysis. Time Series Plot, Unit Root Test and Johansen Cointegration models are used to analyze the present data.

DATA ANALYSIS AND DISCUSSION

The data was collected from the historical data of Bombay Stock Exchange of India. S&P BSE Sensex and S&P BSE FMCG traded in BSE, were collected over a period of time from April 1st 2015 to 31st March 2022 purposefully. Econometrics methods were used to analyze the data with the aid of software EViews. The study employs Time Series Plot to check the Random Walk Pattern of the series and Unit Root Test was employed to test the Stationarity of the series. A long run relationship between daily stock prices of S&P BSE Sensex and S&P BSE FMCG was tested using Johansen Co-integration method.

Time Series Plot of S&P BSE Sensex and S&P BSE FMCG Daily Prices

Time series plot of S&P BSE Sensex and S&P BSE FMCG is examined in order to check the trend of the series. Figures.1&2 portray the actual framework of the series and provide the description about the series whether it is stationary or not. From the graphs below the S&P

BSE Sensex and S&P BSE FMCG exhibit a Random Walk Pattern. If the series follow a random walk, the series is non-stationary.

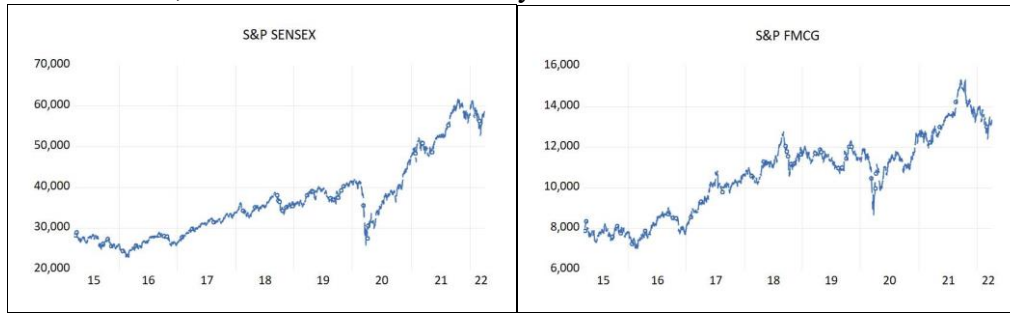


Figure: 1. Time Series Plot of S&P BSE Sensex Figure: 2. Time Series Plot of S&P BSE FMCG

Stationarity of S&P BSE Sensex and S&P BSE FMCG Daily Prices

Results of Unit Root Test

To test the stationarity of the time series, Augmented Dickey Fuller test and Phillips-Perron Test has been applied for each of the S&P BSE Sensex and S&P BSE FMCG Daily Prices.

Table.1. Results of Unit Root Test

Variables	Level		First Difference		Decision
	t-statistic	Probability	t-statistic	Probability	
Augmented Dickey Fuller test					
S&P BSE Sensex	0.312821	0.9790	-41.59198	0.0000	I(1)
S&P BSE FMCG	-1.187808	0.6818	-41.74562	0.0000	I(1)
Phillips-Perron Test					
S&P BSE Sensex	0.261346	0.9762	-41.60726	0.0000	I(1)
S&P BSE FMCG	-1.227051	0.6648	-41.76191	0.0000	I(1)

ADF and PP test has been used to check the stationarity of the time series data of S&P BSE Sensex and S&P BSE FMCG in India. The result shows that at levels the t-statistics and probability value of the daily prices of S&P BSE Sensex and S&P BSE FMCG are greater than 5% level of significance. Therefore, it accepts the null hypothesis and the series is non-stationary at levels.

After first difference the analysis shows that for both ADF and PP test probability value is less than 5% level of significance. Therefore, the null hypothesis is rejected and the series has no unit root and it is stationary. For testing the Co-integration of S&P BSE Sensex and S&P BSE FMCG it is necessary to check their order of integration. Therefore, unit root test was conducted and it was found that series was integrated of order one, I (1).

The test equations for of S&P BSE Sensex and S&P BSE FMCG are as follows: -

S&P BSE Sensex: $\Delta \text{SNSX}_t = \alpha_0 + \alpha_1 t + \beta \text{SNSX}_{t-1} + u_t$

S&P BSE FMCG: $\Delta \text{FMCG}_t = \alpha_0 + \alpha_1 t + \beta \text{FMCG}_{t-1} + u_t$

Where, SNSX_t and FMCG_t are the daily prices of S&P BSE Sensex and S&P BSE FMCG respectively at time 't', α_0 is the constant, $\alpha_1 t$ is the coefficient of the trend series, SNSX_{t-1} and FMCG_{t-1} are the lagged values of order one of daily prices of S&P BSE Sensex and S&P BSE FMCG and u_t is the error term.

Graphical Representation of S&P BSE Sensex and S&P BSE FMCG Daily Prices After First Differencing

The line graphs of daily stock prices of S&P BSE Sensex and S&P BSE FMCG in Figures 3 and 4 shows that the series become stationary after first differencing. After first differencing the time series plot shows that mean and variance of the daily stock prices of S&P BSE Sensex and S&P BSE FMCG are constant over the period of time. Therefore, the time series is purely random or white noise.

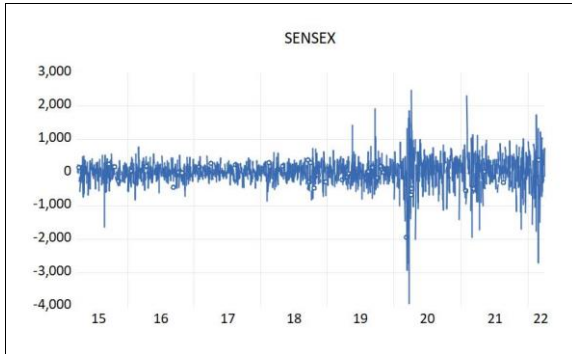


Figure: 3

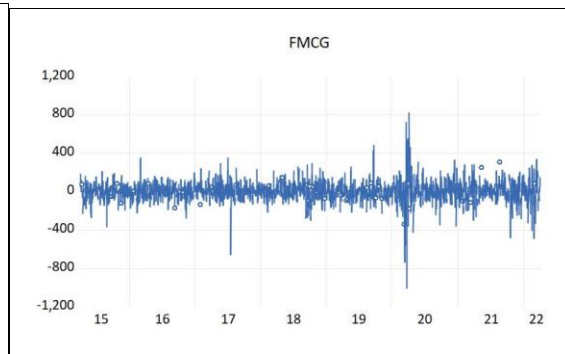


Figure: 4

Graphical Representation of daily stock prices of S&P BSE Sensex and S&P BSE FMCG after first differencing

Long Run Analysis: - Cointegration Between S&P BSE Sensex and S&P BSE FMCG Daily Prices

Johansen Co-integration test based on maximum likelihood has been applied for long run analysis between daily stock prices of S&P BSE Sensex and S&P BSE FMCG. Both Trace Test and Maximum Eigen Value Tests are used for analysis.

Table 2: Co-integration between S&P BSE Sensex and S&P BSE FMCG

Trace Test				
Hypothesized No. of CE(s)	Eigen Value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.164225	577.0868	15.49471	0.0000
At most 1 *	0.143379	267.2696	3.841465	0.0000
Maximum Eigen Value Test				
Hypothesized No. of CE(s)	Eigen Value	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.164225	309.8172	14.26460	0.0000
At most 1 *	0.143379	267.2696	3.841465	0.0000

Trace test shows that the test statistics of ‘None’ category 577.0868 exceeds the critical value 15.49471 and probability value is less than 0.05. It represents that the null of no co-integrating

vectors is rejected. For the category 'At most 1' also the test statistics 267.2696 also exceeds the critical value 3.841465 and p-value is less than 5%. Therefore, the null of no cointegrating vectors is also rejected here. Similarly for Maximum Eigen Value Test both for the 'None' category and 'At most 1' category the test statistics value 309.8172 (267.2696) exceeds the critical value 14.26460 (3.841465). Hence the p-value is also less than 0.05. Therefore, the null hypothesis is rejected here. From the result it is concluded that there is co-movement or a long run relationship exists between daily stock prices of S&P BSE Sensex and S&P BSE FMCG.

The empirical model of cointegration between S&P BSE Sensex and S&P BSE FMCG are as follows:

$$SNSX_t = \delta_0 + \sum_{i=1}^l \theta_i SNSX_{t-i} + \sum_{i=1}^l \beta_i FMCG_{t-i} + u_t$$

$$FMCG_t = \theta_0 + \sum_{i=1}^l \gamma_i SNSX_{t-i} + \sum_{i=1}^l \varepsilon_i FMCG_{t-i} + u_t$$

Conclusion

The present study examines the Cointegration Relationship between S&P BSE Sensex and S&P BSE FMCG Stock Prices in India. The time series plot depicts the original pattern of series of S&P BSE Sensex and S&P BSE FMCG daily stock Prices in India. The result shows that the daily prices of S&P BSE Sensex and S&P BSE FMCG exhibit a Random Walk Pattern therefore the series is non-stationary. Both ADF and PP test at levels shows that the series has no unit root and it is stationary. After first differentiation the time series is purely random or white noise and the series was integrated of order one, I (1). The Trace Test and Maximum Eigen Value Tests in Johansen Co-integration test demonstrate that the 'None' and 'At most 1' category exceeds the critical value and probability value is less than 0.05, decided that there is co-movement or a long run relationship exists between daily stock prices of S&P BSE Sensex and S&P BSE FMCG.

References

- Ali, S. (2013, August). Cointegration Analysis of Exports and Imports: The Case of Pakistan Economy. *European Journal of Technology and Development*, 11.
- Erik Hjalmarrsson, P. Ö. (2007). *Testing for Cointegration Using the Johansen Methodology when Variables are Near Integrated*. IMF Working Paper.
- Fabiano Mello da Silva, D. A. (2014, February). Causality and Cointegration Analysis between Macroeconomic Variables and the Bovespa. *Plos One*, 9(2).
- K. Singaravelu, C. D. (2013, October). Rural Consumer Behaviour on Fast Moving Consumer Goods. *International Journal of Development Research*, 3(10), pp.073-075.
- Malhotra, S. (2014, January). A Study on Marketing Fast Moving Consumer Goods. *International Journal of Innovative Research & Development*, 3(1).
- Mohamad Azwan Md Isa, F. N. (2018). A Conceptual Paper on Cointegration and Causality between the Stock Markets and Macroeconomic Variables. *Global Business and Management Research*, 10(4).
- Muhammad Kamran Khan, J.-Z. T. (2019). Cointegration between macroeconomic factors and the exchange rate USD/CNY. *Financial Innovation*, 1-15.
- Patil, P. H. (2016, February). An Overview of Indian FMCG Sector. *Indian Journal of Research*, 5(2), 171-173.

- Radha K V, B. S. (n.d.). Cointegration and Causal Relationship between Exchange Rates and Stock Returns: A study on Indian context.
- Raghunath, U. (2018 , September). Fast Moving Consumer Goods Retail Market, Growth Prospect, Market Overview Towards FMCG Market In Indian Market. *Journal of Emerging Technologies and Innovative Research*, 5(9), 76-79.
- V. Rajalakshmi, K. D. (2020, March). A Study on Fast Moving Consumer Goods (FMCG)-with Special Reference to Kancheepuram District. *IX, Issue III, March/2020(III)*, 2267-2274.
- Yan-Yong Zhao, X.-G. Y.-C. (2020). A multivariate cointegration time series model and its applications in analysing stock markets in China. *Economic Research*, 33(1), 698–711.

THE FINANCIAL INCLUSION OF PERSONS WITH DISABILITIES

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Abstract

In a world where each nation uplifts their economic base in order to compete in the globalised environment, Financial inclusion still remains as a critical agenda for achieving inclusive growth which eventually leads to sustainable development of the nation. The concept of inclusive growth should not reach its destination until achieving the universal financial inclusion. In the present scenario financial inclusion is a policy of compulsion. Even though authorities adopt innovative measures for including the unbanked still there are different sections who stand outside the formal financial structure. The present study is an attempt to assess the financial inclusiveness and financial literacy of Persons With Disabilities (PWD) in Kerala. The differently abled or persons with disabilities are the prominent section in the society who needs special attention and acceptance while framing the developmental policies of the nation. The participation of the persons with disabilities in the formal financial system is not up to the mark. The main objective of the study is to assess the basic financial literacy level of persons with disabilities, the impact of financial inclusion on their financial independence and to identify the different forms of barriers confronted by the PWD in availing financial services from formal financial institutions. The primary data for the study were gathered from eighty persons with disabilities by using stratified sampling technique. Based on the results it is revealed that basic financial literacy is not a prerequisite for the financial inclusion of the PWD and it is identified that the inappropriate behaviour of the bank staff is the major barrier confronted while availing financial services from formal financial institutions. The major reasons for the financial exclusion of this section are physical barriers and the lack of acceptance from the vast section of the population. It could be observed that persons with disabilities are more often unequally treated in the formal financial system. The financial inclusion of persons with disabilities not only protects the equality of this relevant section but also lubricate the inclusive growth of the country. The study strongly intent to provide suggestions to the authorities for the better utilisation of the Business Correspondents and Business Facilitators in order to ensure banking services to this marginalised category who stands outside the purview of the formal financial system. Through this paper the authors aim to enhance the financial freedom of the population under study.

Key words: *Financial Inclusion, Financial Literacy, Persons With Disabilities (PWD), Financial Exclusion, Inclusive Growth.*

Introduction

Financial inclusion is one of the most important yardsticks for measuring the social and economical growth of a nation. It is the process of ensuring formal financial products and services to the disadvantaged and low-income groups in an affordable cost. The financial services include savings, insurance, payments, loans, remittance facilities and financial advisory services by the formal financial system. A developing country like India has to travel a lot to achieve cent percent financial inclusion. Even though RBI and Government of India undertake various measures to include the excluded sections, but still there are large

segment of under privileged or marginalised communities who stands outside the purview of formal financial system.

According to The Rights of Persons with Disabilities Act 2016, person with disability means a person with long term physical, mental, intellectual or sensory impairment which in interaction with barriers, hinders his or her full and effective participation in a society equally with others. Persons with disabilities are the prominent sections in the society who always falls behind other marginalised communities. This section of population needs special attention and consideration while framing the financial inclusion and financial literacy policies of the nation. Our country and our population do not expect any contribution for the growth and sustainability of the country from these marginalised groups. The attitude of people towards this differently abled section need to be changed by enhancing their role in the inclusive growth of the country. The self-confidence of this sections most often diminishes on each occasion they interact with the people of the society at large. The story and life of Stephen Hokings who ruled the science world from a wheel chair and the story of Warren Buffet who controlled the stock market in his nineties can be clearly imparted to these differently abled sections in order to cross their thinking beyond the national boundaries.

Persons with Disabilities constitute around the 12% of the global population and 80% of them are concentrated in developing countries. Person with Disabilities lacks access to income generating activities and other financial activities. Many of the differently abled persons in India still does not have a basic saving bank account. The major reasons for their exclusion are due to the lack of economic opportunities available to them. Until their income exceeds their basic expenditure then only they think once about the need of saving and investment. The development of saving and investment culture among this marginalised group is urgent for a developing country like India. The inclusive growth of each section in the country is essential for the race from a developing nation towards a developed nation. The present study aims to uplift the financial freedom and financial opportunities of the persons with disabilities in Kerala.

Review of Literature

Bire, Sauw& Maria (2019) made an attempt to assess the effect of financial literacy towards financial inclusion through financial training. It is found that financial literacy had a direct and significant impact on the financial inclusion. By forecasting the future it is mandatory to enhance the frequency of financial training for MSMEs actors in Kupang city, Indonesia. **Gupta&Misra (2021)** states that lack of awareness of government schemes, poverty, prevalence of low income, illiteracy, unemployment and inadequate branch network has the main reason which restrict person with disabilities from financial inclusion. Majority of financial institutions were not willing to offer insurance facilities to person with disabilities and if they offer insurance facilities to this disabled sections they charges high insurance premium by considering the risk factors. **Jiya et.al(2021)** point out that lack of financial literacy, communication barriers, technological barriers, presence of unemployment has the main hurdles for the commercial banks in extending financial services to the person with disabilities. It is relevant that the majority of disabled citizens were unaware of the campaigns and information about financial services delivered by the commercial banks. The study recommends the government to enforce disability employment and rehabilitation laws in Malawi and also to extent financial literacy to persons with disabilities.

Statement of the Problem

India had a long history of discrimination between different segments of the population. The reason for the discrimination could be the income inequality which is prevailing in the

society. Even after the independence, different segments of the population do not have proper financial freedom in taking independent financial decisions which had impact on the living condition of the decision maker and the economic development of the country.

Financial inclusion does not target the fuller utilisation of every financial products and services by each individual in the country. But it aims to provide an equal chance for selecting appropriate financial products and services irrespective of income or other discriminating factors. Different studies indicate that Persons with disabilities are one of the prominent segments of the population who are still subject to different forms of discrimination from the formal financial institutions. It could be observed that Persons with disability have limited access to traditional and modern banking facilities. Most of the financial service providers had prejudice belief that financial service is not the only way to uplift the economic environment of these segments, instead charity is the best way to enhance their economic base. The sympathetic behaviour of the society towards the persons with disabilities itself creates a sense of discrimination. However, the PWD always seek for equal considerations from all the system of the country other than the sympathetic consideration. It can be stated that, the discrimination towards PWD can be minimised by including them in the mainstream formal financial system.

Significance of the Study

The globalisation and economic reforms made it obligatory for each nation to participate in the competition cycle. In order to win the competition, each country need to attain maximum inclusive growth with their available resources. Financial inclusion acts as a bridge in achieving inclusive growth as it is considered as a pre-requisite for social inclusion and a tool for overcoming the income inequality prevailing in the literate society. Persons with disabilities form a sizeable population in the country who can contribute a large proportion to the sustainable development of the nation. The inclusion of this section in the formal financial system would be helpful in developing their living condition and for creating a sense of hope for their future. It could be observed that, a good number of persons with disability live a miserable life. The financial insecurity together with inferiority complex create challenges in the life of persons with disabilities. Even though Reserve Bank of India and other government authorities recommends the commercial banks to maintain disabled citizens friendly branches, still most of the banks and other financial institution is inaccessible to this section of population. Their limited income also creates a sense of gap from formal financial institutions. The present study aims to assess the level of financial literacy of persons with disability, the impact of financial inclusion on their financial independence and the barriers faced by PWD in availing financial services.

Objectives of the Study

1. To assess the level of basic financial literacy of Persons with disabilities in Kerala.
2. To assess the impact of financial inclusion on the financial independence of PWD.
3. To identify the barriers confronted by the persons with disabilities in availing financial services from formal financial institutions.

Scope of the Study

Financial inclusion is emerged as a benchmark effort to abolish the gap between economically stronger and weaker sections. Government and other financial service providers adopt strategies for the inclusion of disabled citizens as a part of their social responsibility initiatives. But the surprising fact is that all these appreciating efforts did not attained its objectives. The poor literacy among persons with disabilities constitutes hindrance in the financial inclusion drive of this efficient section of population. In this context, this paper attempts to assess the financial inclusion, financial literacy and financial independence of person with disabilities in Kerala. The study is confined to Kozhikode district of Kerala.

Limitations of the Study

- Persons with three types of disabilities are only selected for the study.
- Communication barriers exist while interviewing the persons with hearing impairment.

Research Methodology

The study is conducted by using both primary and secondary data. The primary data were collected using structured interview schedule and the necessary secondary data were gathered from internet, journals and magazines. The stratified sampling technique is used for the study and the primary data were collected from 80 persons with Locomotor Disability, Visual impairment and hearing impairment. The collected data are analysed by using chi-square statistical tool.

Data Analysis and Discussion

Traditionally financial inclusion was assessed only on the basis of account ownership. The status of accountholder's contact with formal banks was not given prior importance while assessing the financial inclusion. In the present study the financial inclusion is analysed on the basis of account ownership and the status of accountholder's contact with formal banks for availing any other services. The persons with disabilities who own any bank account and maintained a contact with formal banks (Online banking or Offline banking) at least once in a month alone are considered as financially included.

The basic financial literacy of persons with disabilities was assessed on the basis of their numerical literacy, investment literacy and risk literacy. Two questions related to numerical literacy, one question each related to investment literacy and risk literacy were asked and one score is given to each question. The respondents who score more than two were considered as financially literate. The level of financial literacy of PWD is given in Table 1.1 and the level of financial inclusion is given in Table 1.2.

Table 1.1
Level of Financial Literacy

	No of Respondents	Percentage
Financial Literate	32	40
Financial Illiterate	48	60
Total	80	100

Source: Primary Data

Table 1.2
Level of Financial Inclusion

	No of Respondents	Percentage
Financial Included	68	85
Financial Excluded	12	15

Total	80	100
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Source: Primary Data

In order to test whether there is any relationship between basic financial literacy and financial inclusion the following null hypothesis is set;

Ho: There is no significant relationship between basic financial literacy and financial inclusiveness.

Table 1.3
Testing of Hypothesis

Chi - Square	P - Value	Remarks
.261	.609	Ho Accepted

In Table 1.3, relationship between basic financial literacy and financial inclusiveness is analysed by using chi square statistical tool. Since the P Value is greater than 0.05, the null hypothesis is accepted. So it can be stated that the basic financial literacy is not a prerequisite for the financial inclusiveness.

The financial independence of persons with disabilities was assessed on the basis of financial decision making power of the respondents. The respondents were asked whether they had the power to take financial decision. The responses were analysed by using five point scale. The respondents who disagreed and strongly disagreed were considered as having no financial decision making power.

A good majority (71%) of respondents were found to have no financial independence in taking financial decisions. In order to test whether there is any significant relationship between financial inclusion and financial decision making power the following null hypothesis is set;

Ho: There is no significant relationship between financial inclusion and financial decision making power.

Table 1.4
Testing of Hypothesis

Chi - Square	P - Value	Remarks
7.179	.127	Ho Accepted

In Table 1.4, the relationship between financial inclusion and financial decision making power is analysed by using chi square. Here the P Value is greater than 0.05, so the null hypothesis is accepted. It is evident that the financial inclusiveness cannot determine the financial decision making power of persons with disabilities. Most of the accountholder's financial decisions were always insisted by their close family members.

Based on the pilot study it could be observed that persons with disabilities were confronted with different barriers in availing the service from formal financial institutions. Lack of confidence, inappropriate infrastructures in the bank premises, behaviour of the bank staff, excessive bank charges and other geographical barriers were found to be the main barriers. More than half of the respondents opined that inappropriate behaviour of the bank staff is the major barrier in availing the financial services of the formal financial institutions. In order to know whether there is any significant relationship between behaviour of bank staff and customer privilege, following null hypothesis is set;

Ho: There is no significant relationship between behaviour of bank staff and customer privilege.

Table 1.5
Testing of Hypothesis

Chi - Square	P - Value	Remarks
31.696	.011	Ho Rejected

In Table 1.5, the relationship between the behaviour of bank staff and its influence on the customer privilege is analysed by using chi- square. The result shows that the P value has .011, which is less than 0.05 and the null hypothesis is rejected. It is revealed that the behaviour of bank staff will definitely influence the perception of customer regarding their privilege. Persons with disabilities are not properly attended by and are not given any consideration expected from the part of bank officials, which created a distance between formal financial institution and this relevant section of population.

Conclusion

During the pre independence scenario Britishers used the Divide and rule mechanisms to control the citizens in the country. After independence all the divisions existing in the country were abolished to a greater extent. But in the present era the main divisions existing in the society is on the basis of accessibility towards formal financial system. Now the financial exclusion remains has the identity of under privileged or marginalised sections in the country. The prejudice belief of the abled citizens that charity is the best way to develop disabled citizens rather than financial services had crucial negative impact on the financial growth of this marginalised section. It is observed that the basic financial literacy and financial inclusion of the persons with disabilities are running in different direction. Also the financial inclusion of the PWD does not have any role in ensuring their financial independence. The main barriers confronted by the differently abled citizens while availing financial services consist of lack of confidence, inappropriate infrastructure in the bank premises, behaviour of the banks staff, excessive bank charges and other geographical barriers. Among the barriers inappropriate behaviour of the bank staff widens the gap between differently abled section of population and formal financial institutions. The present study always insist on ensuring fair and equal access to quality financial products and services for persons with disabilities. The authorities should generate employment and rehabilitations initiatives for differently abled

persons which eventually enhance the living condition and their participation in formal financial system.

Reference

1. Bire, A. R., Sauw, H. M., & maria. (2019) The Effect of Financial Literacy Towards Financial Inclusion Through Financial Training. *International Journal of Social Sciences and Humanities*, 3 (1), 186 - 192.
2. Government of India (2016) Rights of Person with Disabilities Bill - 2016 Passed by Parliament, Ministry of Social Justice and empowerment.
3. Government of India (2017) Disabled Person in India- A statistical profile 2016, Ministry of Statistical and Programme Implementation.
4. Gupta, S., & Misra, D. (2021) Financial inclusion for person with disabilities in India. *International Journal of Medical Science and Pathology*, 1 (5).
5. Jiya, A. N., Opoku, M. P., Nketsia, W., Dogbe, J. A., & Adusei, J. N. (2021) Achieving Financial Inclusion for Persons with Disabilities: Exploring Preparedness and Accessibility of Financial Services for Persons with Disabilities in Malawi. *Journal of Disability Policy Studies*.

EFFICIENCY ASSESSMENT OF SMALL FINANCE BANKS USING DATA ENVELOPMENT ANALYSIS (DEA) MODEL

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Abstract

The Small Finance banks are Niche banks that operate in India. Successfully launched by RBI from 2015, now there are 11 Small Finance Banks (SFB) that are operational. This paper finds out the efficiencies of 9 small finance banks who already has previous 4 years' data on Total Income, Total Expenditure and Net Non-Performing Asset Data Envelopment Analysis (Computer) Program (DEAP) is used for the assessing Data Envelopment Analysis Model (DEA) and Malmquist model is applied in this study. This analysis finds out Utkarsh SFB as the most efficient SFB and Ujjivan SFB that need more improvements. The assessment time is taken for the financial years 2017-2018 to 2020-2021. This analysis will urge the under efficient Decision-making Units (DMU) to find where do they stand in efficiency and improve their performance to the efficient DMUs.

Key Words: *Small Finance Banks, Niche Banks, Efficiency, DEA, Malmquist, DEAP*

I. Introduction

The Small Finance Banks are banks who were already acting as a financial organisation before it was licensed by the RBI to operate as Small Finance Banks in Niche markets. Hence their continuous efficiency analysis is vital for its survival and growth at a time when large public sector banks in India are merging, Fintech is revolutionising the banking operations and pandemic situations are shaking the world which is making financial organisations to rethink about their operational strategies. This paper takes into study the first nine Small Finance Banks that were given the operational licence. The DEA analysis is one of the trusted analysis that can be used to quantify the efficiencies based on different orientations like Input oriented and output oriented when we have data for input variables and output variables that are correlated (Ma et al., 2022). Hence, this study has taken Total Income, Total Expenditure, Gross NPA and Net NPA as four variables where Total Income is taken as Output variable and the rest as Input variables. As the data is panel-based Malmquist analysis in DEA is used with Constant Returns to Scale (CRS) to reach the efficiency scores as Total Factor Production (TFP) (Coelli, 2016). The data taken is of secondary in nature and it is sourced from the respective annual reports of the Small Finance Banks, with the Total Income and Total Expenditure rounded in Rupees Lakhs rounded off to the nearest integer and the Gross NPA and Net NPA as percentages to Net Advances rounded off to nearest two decimals.

II. Literature review

2.1 Small Finance Banks (SFBs)

An efficiently running economy will always be credited with an efficient banking system. Reaching the banking services and facilities to all the people is a challenge that India has taken up for good. The RBI is playing a pivotal role in overcoming this challenge. In 2014 the Nachiket Mor Committee formed as per the direction of the then RBI Governor Raghuram Rajan and committee suggested for forming Differentiated Banks. But even before the licensing of Differentiated banks there are UCB, RRB, LAB that are operating in niche segments. The Differentiated banks or the Niche banks was well defined by the R. Gandhi, the then Deputy Governor of RBI during the year 2015. 'Differentiated banks are distinct from universal banks as they function in a niche segment. The differentiation could be on account of capital requirement, scope of activities or area of operations. As such, they offer a limited range of services / products or function under a different regulatory dispensation. The concept is not entirely new. In fact, and in a sense, the UCBs, the PACS, the RRBs and LABs could be considered as differentiated banks as they operate in localized areas' (R Gandhi: *Differentiated Banks - Design Challenges*, n.d.).

Presently there are 11 Small finance banks that are operational in India, the general details can be found from Table 2.1.

Table 2.1

List of Scheduled Small Finance Banks				Registered Office	
Sr.No.	Name of the Bank	RBI License date	Operation commenced on	City	State
1	Au Small Finance Bank Limited	20-12-2016	19-04-2017	Jaipur	Rajasthan
2	Capital Small Finance Bank Limited	04-03-2016	24-04-2016	Jalandhar	Punjab
3	Equitas Small Finance Bank Limited	30-06-2016	05-09-2016	Chennai	Tamil Nadu
4	Suryoday Small Finance Bank Limited	26-08-2018	23-01-2017	Navi Mumbai	Maharashtra
5	Ujjivan Small Finance Bank Limited	11-11-2016	01-02-2017	New Delhi	Delhi
6	Utkarsh Small Finance Bank Limited	25-11-2016	23-01-2017	Varanasi	Uttar Pradesh
7	ESAF Small Finance Bank Limited	18-11-2016	10-03-2017	Trissur	Kerala
8	Fincare Small Finance Bank Limited	12-05-2017	21-07-2017	Ahmedabad	Gujarat
9	Jana Small Finance Bank Limited	28-04-2017	28-03-2018	Bangalore	Karnataka

10	North East Small Finance Bank Limited	31-03-2017	17-10-2017	Guwahati	Assam
11	Shivalik Small Finance Bank Limited	01-01-2021	26-04-2021	Saharanpur	Uttar Pradesh

Source: RBI (*Bs_viewcontent @ m.Rbi.Org.In*, n.d.) and reports of SFBs

2.2 Data Envelopment Analysis (DEA)

Data envelopment analysis (DEA) is the non-parametric mathematical programming approach to frontier estimation (Coelli, 2016). DEA generalizes the Farrell's (1957) technical efficiency measure to the multiple-inputs and multiple-outputs case. DEA involves the use of linear programming methods to construct a non-parametric piecewise surface (frontier) over the data. Efficiency measures are then calculated relative to this surface (Gulati, 2011). The set of frontier observations are decision-making units (DMUs) for which no other DMU produces as much or more of every output (given input) or uses as little or less of every input (given output) (Alsarhan, 2009)

Though DEA was initially used for assessing non-profit organisations, now it is widely applied in many of the profit oriented industries like hospitals, the US Air Force, airports, schools, rates department (Wei, 2001) especially banks and other financial institutions. Different models in DEA can be used to compare efficiency differences between manufacturers. It is also good for estimating efficiency changes trend over time and can be applied to the comparisons in the levels of manufacturer, industry, region, and nations (Vijayamohanan Pillai N., 2019) of similar nature.

The important terms related to DEA and this study are explained below

2.2.1 DEAP 2.1 Computer Program

The Data Envelopment Analysis (Computer) Program abbreviated as DEAP was inscribed by Tim Coelli and compiled using a Lahey F77LEM/32 compiler for an IBM compatible PC, which is authentic and free for the assessment using various DEA models. This program is used to construct DEA frontiers for the calculation of technical and cost efficiencies and also for the calculation of Malmquist TFP Indices (*Software - School of Economics - University of Queensland*, n.d.)

The principle options provided under DEAP includes

- Standard CRS and VRS DEA models that involve the calculation of technical and scale efficiencies (where applicable)
- The extension of the above models to account for cost and allocative efficiencies
- The application of Malmquist DEA methods to panel data to calculate indices of total factor productivity (TFP) change; technological change; technical efficiency change and scale efficiency change

All methods are available in either an input or an output orientation with the exception of the cost efficiencies option. The output from the program includes, where

applicable, technical, scale, allocative and cost efficiency estimates; slacks; peers; and TFP indices (Coelli, 2016)(*Software - School of Economics - University of Queensland*, n.d.).

2.2.2 Decision Making Units (DMUs)

An organisational unit of interest such as a banks, bank branch, university, real estate agent or hotel that becomes the focus of relative efficiency study in data envelopment analysis (Wei, 2001)(Avkiran, 2015).

2.2.3 Input Variables

The Input Variables can be those variables which when reduced will improve the efficiency of DMUs. When there are multiple input variables those with least correlation and having high correlation with the output variables can be selected (Martić & Savić, 2001). The input variables can be both discretionary and non-discretionary in nature (Cooper et al., 2011).

2.2.4 Output Variables

The output Variables can be those variables which when increased will improve the efficiency of DMUs. When there are multiple output variables those with least correlation and having high correlation with the input variables can be selected (Martić & Savić, 2001).The output variables can be both discretionary and non-discretionary in nature (Cooper et al., 2011).

2.2.5 Constant Returns to Scale (CRS)

Under this option we assume that outputs vary in direct proportion to the change in inputs regardless of the size of the DMU. That is, CRS assumes that the DMU's scale of operations does not influence its efficiency (Wei, 2001)(Avkiran, 2015).

2.2.6 Variable Returns to Scale (VRS)

Variable returns to scale assumes that changing inputs may not necessarily result in a proportional varying in outputs. That is, as a DMU becomes larger, its efficiency would either fall or rise (Wei, 2001)(Avkiran, 2015).

2.2.7 PanelData

Data that are of time-series nature are called panel data, Time-series data or Longitudinal data. Here data on multiple entries are assessed over time. Panel data is an essential for analyzing the DEA using Malmquist model.

2.2.8 Output Maximization

Also known as output expansion or output orientation is defined as maximising the outputs level for the given inputs controllable in the same or no more favourable operating environment (Avkiran, 2015).

2.2.9 Input Minimization

The analyst who chooses input minimisation is concerned with maintaining at least the same level of outputs while minimising inputs. This option may be particularly attractive to the analyst when cost reduction strategies are in place or downsizing is planned (Wei, 2001).

2.3 Malmquist Index model

When the data taken for the assessment is panel based we use DEA –like linear programs and a (input- or output-based) Malmquist TFP index to measure productivity change, and decompose this productivity change into Technical Efficiency and Technological Efficiency change (Rolf Fare, Shawna Grosskopf, Mary Norris, 1994) (Ray & Desli, 1997) (Coelli, 2016). The Malmquist Index is defined using the distance functions (Zuniga Gonzalez, 2012). In an output distance function, the aim is to maximise the proportional expansion of the output vector for a given input vector (Wei, 2001). (Rolf Fare, Shawna Grosskopf, Mary Norris, 1994)

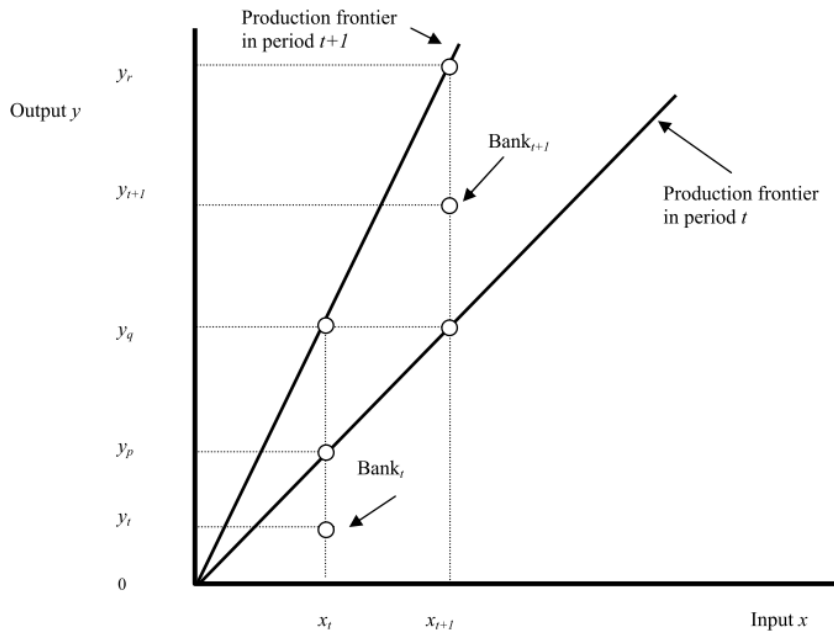
puts forward the output-based Malmquist Index or the Total Factor Production change (TFPCH) in Equation 1 where the ratio outside square brackets is the Technical Efficiency and the expression in square brackets is the Technological Efficiency. Thus MI can be said as a product of Technical Efficiency (effch) and Technological Change (techch). The Eq 1 can be simplified as Eq 2.

$$M_0(y_{t+1}, x_{t+1}, y_t, x_t) = \frac{d_0^{t+1}(x_{t+1}, y_{t+1})}{d_0^t(x_t, y_t)} \left[\frac{d_0^t(x_{t+1}, y_{t+1})}{d_0^{t+1}(x_{t+1}, y_{t+1})} \times \frac{d_0^t(x_t, y_t)}{d_0^{t+1}(x_t, y_t)} \right]^{1/2} \quad (1)$$

$$M_0(y_{t+1}, x_{t+1}, y_t, x_t) = \left[\frac{d_0^t(x_{t+1}, y_{t+1})}{d_0^t(x_t, y_t)} \times \frac{d_0^{t+1}(x_{t+1}, y_{t+1})}{d_0^{t+1}(x_t, y_t)} \right]^{1/2} \quad (2)$$

Here, (x_{t+1}, y_{t+1}) is the productivity of production point relative to production point (x_t, y_t) . This index is the geometric mean of two output-based Malmquist Indices, that includes period t technology and the other period t+1 technology. The Fig 2.1 which is stated in (Wei, 2001) can be used to understand output oriented MI using CRS and formulate the Technical Efficiency and Technological Efficiency using one input (x) and one output (y).

Fig 2.1 Output Oriented MI using CRS.



Here (Wei, 2001)(Avkiran, 2015)explains the bank is producing at a level of productivity less than what is feasible under each period’s technology. MI under constant returns to scale technology indicates a potential rise in productivity as the technology frontier shifts from period t to $t+1$. For example, the bank at time t could produce output y_p for input x_t ; for the same input it could produce output y_q at time $t+1$. Change in technical efficiency and technological change depicted in Figure 2.1 are represented by the distance functions in equations 3 and 4 respectively.

$$\text{Technical Efficiency Change} = \frac{y_{t+1}/y_r}{y_t/y_p} \tag{3}$$

$$\text{Technological Change} = \left[\frac{y_{t+1}/y_q}{y_{t+1}/y_r} \times \frac{y_t/y_p}{y_t/y_q} \right]^{1/2} \tag{4}$$

Further 4 LPs are to be calculated for each firm in the sample. Thus the total number of LPs can be found out using the formula $N(3T-2)$ (Wei, 2001)(Zúniga-gonzález et al., 2022). In this assessment N represent number of SFBs and T represents Time periods used which is 4. So in the case of 9 SFBs total LPs will be 90.

The 4 CRS Output-oriented LPs used to calculate are

$$\begin{aligned} [d_o^t(x_t, y_t)]^{-1} &= \max_{\phi, \lambda} \phi \\ \text{st} \quad &-\phi y_{it} + Y_t \lambda \geq 0, \\ &x_{it} - X_t \lambda \geq 0, \\ &\lambda \geq 0, \end{aligned} \tag{5}$$

$$\begin{aligned} [d_o^t(x_{t+1}, y_{t+1})]^{-1} &= \max_{\phi, \lambda} \phi, \\ \text{st} \quad &-\phi y_{i,t+1} + Y_t \lambda \geq 0, \\ &x_{i,t+1} - X_t \lambda \geq 0, \\ &\lambda \geq 0, \end{aligned} \tag{6}$$

$$\begin{aligned}
[d_o^{t+1}(x_t, y_t)]^{-1} &= \max_{\phi, \lambda} \phi \\
\text{st } -\phi y_{it} + Y_{t+1} \lambda &\geq 0 \\
x_{it} - X_{t+1} \lambda &\geq 0 \\
\lambda &\geq 0
\end{aligned}
\tag{7}$$

$$\begin{aligned}
[d_o^{t+1}(x_{t+1}, y_{t+1})]^{-1} &= \max_{\phi, \lambda} \phi, \\
\text{st } -\phi y_{i,t+1} + Y_{t+1} \lambda &\geq 0, \\
x_{i,t+1} - X_{t+1} \lambda &\geq 0, \\
\lambda &\geq 0,
\end{aligned}
\tag{8}$$

Where,

ϕ = Technical Efficiency

st = subject to

Y = Output Matrix

λ = N x1 vector of constants

X = Input Matrix

III. Methodology

The study involves collecting data of 10 SFBs Total Income, Total Expenditure and Net NPA from their respective annual reports and financial statements for 4 years from 2017-18 to 2020-2021. The Financial Year 2021-2022 is not considered in this study as the annual report of many a Small Finance Banks were unpublished, and DEA cannot be analysed with missing data. The variables are selected based on the discretionary importance the respective banks have. To assess the generic efficiency of SFBs, 2 inputs and 1 outputs are taken (Farrell, 1957) for the assessment of 10 SFBs.

Based on it, the Total Income is taken as an Output-variable that the Banks tries to improve and the Total Expenditure and Net NPA as Input Variables that the SFBs tries to reduce and optimise. The 4 years selected are based on the full availability of data, as missing data will not give assessment results in DEA. The Shivalik SFB is also excluded from the total 11 SFBs from the assessment as it started its operations recently, and does not contribute data for the study. To eliminate the impact of potential outlier (Avkiran, 2015), the DEA analysis was conducted with 10 SFBs initially and Jana SFB was found as a potential Outlier which was running at loss for all the years under study and with a Net NPA of 27.72% in the first year and hence it was removed and the DEA calculations was rerun with 9 SFBs, which also satisfies the maximum number of DMUs selection criteria given in (Jubilee et al., 2020).

$$n \geq \max\{m \times s, 3(m + s)\} \tag{9}$$

Where, the n represents number of DMUs, and number of Inputs and Number of Outputs are m and s respectively.

The Total Income that includes Interest Income, Non-Interest Income and Total Expenditure are in Rupees Lakhs and The Net NPA is taken as the percentage of Net

NPA to Net Advances. The variables taken are discretionary(Cooper et al., 2011) in nature which means they are directly controllable by the respective SFBs management.

The data are assessed using Malmquist model through the DEAP. This gives the results of Technical Efficiency (effch), Technological Efficiency(Techch), Pure Technical Efficiency (pech), Scale Efficiency (sech) and Total Factor Production Change (tfpch) or Malmquist Index. The results are generated in time wise, which is annual means and in firm wise.

IV. Discussion

4.1 DEA of 10 Small Finance Banks

From the list of SFBs given in Table 2.1, all the banks except Shivalik SFBs Total Income, Total Expenditure and Net NPA are taken with the Output-variable as Total Income and the rest as Input Variables. The instructions given in DEAP for Malmquist model as shown in Table 4.1 and the efficiency results are shown in Table 4.2.

**Table 4.1
Instruction for conducting DEA for 10 SFBs**

EG4-dta.txt	DATA FILE NAME
EG4-out.txt	OUTPUT FILE NAME
10	NUMBER OF FIRMS
4	NUMBER OF TIME PERIODS
1	NUMBER OF OUTPUTS
2	NUMBER OF INPUTS
1	0=INPUT AND 1=OUTPUT ORIENTATED
0	0=CRS AND 1=VRS
2	0=DEA(MULTI-STAGE), 1=COST-DEA, 2=MALMQUIST-DEA, 3=DEA(1-STAGE), 4=DEA(2-STAGE)

**Table 4.2
DEA Result for 10 SFBs**

MALMQUIST INDEX SUMMARY OF ANNUAL MEANS

year	effch	techch	pech	sech	tfpch
2	1.121	1.095	1.033	1.086	1.228
3	1.013	1.110	1.060	0.955	1.125
4	0.946	0.850	0.963	0.983	0.804
mean	1.024	1.011	1.018	1.006	1.035

MALMQUIST INDEX SUMMARY OF FIRM MEANS

firm	effch	techch	pech	sech	tfpch
1	1.000	0.972	1.000	1.000	0.972
2	0.969	1.038	1.036	0.935	1.005

3	1.011	1.035	1.044	0.969	1.046
4	1.031	1.133	1.070	0.963	1.168
5	1.359	1.027	1.018	1.335	1.396
6	0.979	1.030	0.965	1.015	1.009
7	1.000	0.781	1.000	1.000	0.781
8	0.971	1.032	0.971	0.999	1.002
9	1.069	1.067	1.081	0.988	1.140
10	0.911	1.036	1.000	0.911	0.944

mean 1.024 1.011 1.018 1.006 1.035

[Note that all Malmquist index averages are geometric means]

Here the results shows the SFBs over the 4 years has grown 3.5 % $(1.035-1)*100$. And there is decline in annual improvements from 2nd year 1.228 to 0.804 in the 4th year. The firms Malmquist index shows that the DMU 5 (1.396) as the most improved and DMU 7 as the SFB least improved 21.9% $(1-0.781)*100$. The study also analysed the chances of any potential outliers by rule of thumb and found that DMU 5 which is Jana SFB was having loss andis recovering from it during all periods of study. Its Net NPA was 27.72% in the 1st year, and then got a drastic decline in the next years. Considering these facts, the Jana SFB was removed from the analysis as a potential outlierand the DEAP program was rerun with 9 SFBs. The instruction given thus is shown in Table 4.3 and the results generated in Table 4.4.

Table 4.3

Instruction for conducting DEA for 09 SFBs

EG4-dta.txt	DATA FILE NAME
EG4-out.txt	OUTPUT FILE NAME
9	NUMBER OF FIRMS
4	NUMBER OF TIME PERIODS
1	NUMBER OF OUTPUTS
2	NUMBER OF INPUTS
1	0=INPUT AND 1=OUTPUT ORIENTATED
0	0=CRS AND 1=VRS
2	0=DEA(MULTI-STAGE), 1=COST-DEA, 2=MALMQUIST-DEA, 3=DEA(1-STAGE), 4=DEA(2-STAGE)

Table 4.4

DEA Result for 09 SFBs

MALMQUIST INDEX SUMMARY OF ANNUAL MEANS

year effchtechchpechsechtfpch

2	1.119	1.108	1.110	1.008	1.240
3	0.925	1.115	0.988	0.936	1.031
4	0.945	0.832	0.961	0.983	0.787

mean 0.992 1.009 1.018 0.975 1.002

MALMQUIST INDEX SUMMARY OF FIRM MEANS

firm effchtechchpechsechtfpch

1	1.000	0.972	1.000	1.000	0.972
2	0.969	1.038	1.036	0.935	1.005
3	1.011	1.035	1.044	0.969	1.046
4	1.031	1.133	1.070	0.963	1.168
5	0.979	1.030	0.965	1.015	1.009
6	1.000	0.781	1.000	1.000	0.781
7	0.971	1.032	0.971	0.999	1.002
8	1.069	1.067	1.081	0.988	1.140
9	0.911	1.036	1.000	0.911	0.944

mean 0.992 1.009 1.018 0.975 1.002

[Note that all Malmquist index averages are geometric means]

The program rerun with 9 DMUs shows the SFBs were able to improve only 0.2% over 4 years. And it is crucial to note that the annual improvements are declining from 1.240 in the 2nd year to 0.787 in the 4th year. This decline was contributed by the decline of technical efficiency (0.925) in the 3rd year and technological efficiency in the 4th year (0.832).

The Table 4.5 shows the banks MI, the improvements or decline in improvement and the ranks thereof.

Table 4.5

Rank of SFBs				
DMU	tfpch (MI)	Improvement/decline in %	Rank	SFBs
1	0.972	-2.8	7	AU
2	1.005	0.5	5	Capital
3	1.046	4.6	3	Equitas
4	1.168	16.8	1	Utkarsh
5	1.009	0.9	4	ESAF
6	0.781	-21.9	9	Ujjivan
7	1.002	0.2	6	Suryoday
8	1.140	14	2	Fincare
9	0.944	-5.6	8	North East

The assessment shows that there are 6 SFBs that has improved their productivity and 3 SFBs that needs to improve their Total Income by maintaining the Total expenditure and Net NPAs at a controlled level.

V. Conclusion

The study was taken in order to understand the general position of SFBs in terms of Total Income, Total expenditure and Net NPA using DEA model. The results found says that the performance of annual TFP is declining and it requires the attention of SFBs. Utkarsh was the most improved SFB and Ujjivan the least. By further analysing, it was found that the SFBs were able to increase the Total Income and control is

needed in terms of Total Expenditure. Phenomenal increase of Net NPAs were found in SFBs except Capital and Equitas from the 2019-2020 to 2020-2021. The impact of Covid 19 on SFBs and breaking down the factors of analysis can be area next to be explored. The performance during pre-pandemic and during pandemic is covered in this study, post-pandemic the SFBs need to drastically improve the performance and efficiency by adapting new FinTechs which some SFBs has already begun. The Niche Banks are playing a good role in channelling the finances and in financial inclusion. Its survival and growth is essential for better livelihood of poor, middle class, MSME.

References

- Alsarhan, A. (2009). Banking Efficiency in the Gulf Cooperation Council Countries : an Empirical. *UMI Dissertation Publishing*.
- Avkiran, N. (2015). Productivity Analysis in the Service Sector with Data Envelopment Analysis. In *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2627576>
bs_viewcontent @ m.rbi.org.in. (n.d.).
https://m.rbi.org.in/scripts/bs_viewcontent.aspx?Id=3657
- Coelli, T. (2016). A Guide to DEAP Version 2.1: A Data Envelopment Analysis (Computer) Program. *CEPA Working Paper 96/08 ABSTRACT*, 4(1), 1–7.
- Cooper, W. W., Seiford, L. M., & Zhu, J. (2011). Data envelopment analysis: History, models, and interpretations. *International Series in Operations Research and Management Science*, 164, 1–39. https://doi.org/10.1007/978-1-4419-6151-8_1/COVER/
- Farrell, M. J. (1957). the Measurement of Productive Efficiency. *The Industrial Study of Economic Progress*, 120(3), 16–35. <https://doi.org/10.2307/j.ctv5rxd5.7>
- Gulati, R. (2011). Evaluation of technical , pure technical and scale efficiencies of Indian banks : An analysis from cross-sectional perspective Estimation of technical , pure technical and scale efficiencies of Indian banks : An analysis from cross-sectional perspective. *The 13th Annual Conference on Money and Finance in the Indian Economy*, 1–30.
- Jubilee, R. V. W., Kamarudin, F., Hussain, H. I., Latiff, A. R. A., & Zainal, N. (2020). Analysis of total factor productivity changes in islamic and conventional banks: Empirical evidence from three regions. *International Journal of Management and Sustainability*, 9(3), 161–180. <https://doi.org/10.18488/journal.11.2020.93.161.180>
- R Gandhi: Differentiated banks - design challenges.* (n.d.). Retrieved July 18, 2022, from <https://www.bis.org/review/r150421b.htm>
- Ray, S. C., & Desli, E. (1997). Productivity growth, technical progress, and efficiency change in industrialized countries: Comment. *American Economic Review*, 87(5), 1033–1039.
- Vijayamohanan Pillai N., N. A. M. (2019). *Energy Efficiency Indicators : Estimation Methods. November.*
- Wei, Q. (2001). Data envelopment analysis. In *Chinese Science Bulletin* (Vol. 46, Issue 16). <https://doi.org/10.1007/BF03183382>
- Zúniga-gonzález, C., Moreno-mayorga, L., & Quiroz-medina, C. (2022). *Estudio de la eficiencia técnica en escuelas de campo de Nicaragua Study of technical efficiency in field schools from Nicaragua. June.* <https://doi.org/10.18845/tm.v35i3.5696>
- Zuniga Gonzalez, C. A. (2012). Total Factor Productivity and the Bio Economy Effects. *Journal of Agricultural Studies*, 1(1), 1. <https://doi.org/10.5296/jas.v1i1.2383>

FINANCIAL INCLUSION AND EXCLUSION OF HOUSEHOLD WOMEN IN WAYANAD DISTRICT: A COMPARATIVE STUDY OF RURAL AND URBAN HOUSEHOLD WOMEN.

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Abstract

The study attempts to analyze the financial inclusion of household women in the Wayanad district. The term 'financial inclusion means the delivery of banking services at an affordable cost to the vast sections of disadvantaged and lower income groups of society. Financial inclusion is an indicator of both economic and social empowerment. The main objectives of the study were to understand the degree of financial inclusion of household women in Wayanad and whether there is any difference in the financial inclusion of rural and urban household women in the Wayanad district. The study has got its significance due to two reasons. Firstly, the backwardness and locational disadvantages of the district, Secondly, it addresses the financial inclusion and exclusion aspects related to the women's community. Both primary and secondary data have been used for the study. The data were collected by using a simple random sampling technique by dividing the entire district into three clusters based on three major cities and block Panjyaths. A questionnaire was used as a tool for the collection of data. The percentage analysis and mean comparison, χ^2 test were used to analyse the data. The study found that there is a significant difference in the financial inclusion of Rural and Urban household women in the Wayanad district.

Key Words: *Financial inclusion, Financial exclusion, Household Women, Economic Empowerment, Social empowerment.*

1. Introduction

India is a highly populated country and the majority of the people are hailing from economically backward classes. Hence, the term 'financial inclusion has much significance in a country like India. Financial inclusion gives the conformity of banking and financial services at an affordable cost to the lower income group of a country. It ensures the accessibility of appropriate financial products and services in an affordable and timely manner. It ensures the inclusive growth of a country by focusing on the growth of underprivileged individuals. The success of financial inclusion depends on the upliftment of the poor and disadvantaged people. In India financial inclusion initiatives of the Government includes basic no frill account, Pradhan Mantri Jan Dan Yojana, Atal Pension Yojana, Stand up India Scheme, Pradhan Mantri Mudra Yojana, Sukanya Samrithi Yojana etc. As per the World Bank data about 48% of people in India are Women. Their role in each family has much significance and they look after their family, children and all those who are depending on a home. It's a truth that most women in India are financial dependents. The financial inclusion of women is mainly focused to have complete financial independence for women. There is a variety of schemes have been introduced to accomplish the dream. The result of the financial inclusion insight survey of 2017 used by Yale study reported that 77% of poor women in India have a bank account and only 23% of women are owned a PMJDY account. Of the 77%, only 35% of women are using a bank account and the remaining 42% are dormant account holders which means more than 50% of the account holders are dormant holders. The reason for the existence of the 'Dormant account'. The gender gap in access to bank accounts has been reduced by 14% between 2014 to 2017, but the gender gap in the usage of bank

accounts remain at 11% during this period. India took initiative to reduce the gender gap in accessing bank accounts as a member of the Alliance for financial inclusion. India implemented Denarau Action Plan adopted in Fiji in the April 2016 Global Policy Form. The main challenge to increase the use and access to financial services is the cost and time required to reach a bank outlet. India focuses to ensure the goal of financial inclusion by equitable growth in respect of gender and region. Even though India shows higher economic growth, a significant proportion of the rural and urban population are still facing difficulty in accessing financial services. An adequate reduction in poverty, the sectoral disparity in employment opportunities, etc are the major hindrances to the financial inclusion goals of India. The major variables that block India's financial inclusion goals include gender dominance in access to financial services, age disparity, limited literacy, lack of legal identity, high bank charges, less attractiveness of bank products, etc. (Anand & Chikkara, 2013).

The term financial exclusion can be explained in the following dimension such as 'breadth', 'focus', and 'degree' of financial exclusion. In the first sense, the term 'Financial exclusion' is the process that prevents poor and disadvantaged social groups from gaining access to the financial system (Leysho & Thrift, 1995). In the 'focus' dimension 'financial exclusion' is the potential difficulties faced by some segments of the population in accessing mainstream financial services such as bank accounts/home insurance (Meadows *et al.*, 2004). The 'degree' dimension, which is the narrowest of all definitions of financial exclusion defines 'financial exclusion' as exclusion from particular sources of credit and other financial services including insurance, bill-payment services, and accessible and appropriate deposit accounts (Rogaly & Fisher, 1999).

2. Statement of the problem

The Government of India and RBI have jointly decided as financial inclusion is one of the important national objectives. There are different initiatives have been taken in the last few decades to achieve the objective. Nationalization of banks, formation of cooperative and regional rural banks, the introduction of priority sector lending, initiatives for starting self-help groups, zero balance scheme, etc are highlighted among those. Even though different financial inclusion initiatives have taken up the financial inclusion of Women there are hindrances to attaining the dream. Gender inequality is one of the main constraints and regional disparity is the other constraint. In India, about 65.5% of people are living in the rural region (World bank, June 2020). While considering the gender ratio about 48% of the total population are women among them 32.5% are living in rural areas. The current study focuses to analyse the financial inclusion of women in the Wayanad district. An attempt is to made analyze the data on a Rural and Urban basis.

3. Literature review

There are many prevailing studies related to the area of financial inclusion. But the studies addressing the financial inclusion of women are very hardly seen. The present study uses the data from articles, Journals, and various thesis reports.

The research result (Peter & Ozili, 2020) strongly assesses the degree of association of financial and social inclusion in European African, and Asian countries. It's a study that makes an association of variables in a bird's eye view dimension. The significant findings of a study are that financial inclusion increases the number of account ownership and helps to access bank credit (Allen *et al.*, 2016). Larger access to bank credit results in larger spending for consumption, health and education, and other necessities. The study also emphasises the necessity of designing the policy flexibly to expand the team of new account holders

and encouraging the frequency of access of existing account holders. The technological failure, high cost of opening a bank account, huge financial intermediation costs etc are the major hindrances to financial inclusion (Maity & Sahu, 2019). There are several factors to promote financial inclusion goals of a country which include proximity to microfinance corporations, increase in the level of education and income, financial literacy and financial innovations etc (Ozili, 2018).

A study points out that financial inclusion leads to poverty reduction. The countries having a high level of financial inclusion experience a greater level of poverty reduction (Wallace et al., 1998). A lack of access to finance would result to a greater level of inequality and it leads to greater level poverty (Aghion & Bolton, 1997). A study reveals that the financial market frictions prevent the education opportunities of the poor and thereby the result will be low income and low productivity (Galor & Zeira, 1993). Financial inclusion ensures access to a formal financial system and increases the level of aggregate savings of the people and it will lead to an increase in investible resources. In addition, an overall increase in economic resources will ensure all-around long-term economic development of a country (Aghion et al., 2009). A study emphasised that the final result of financial inclusion is overall economic growth (Bayomi & Melander, 2008). Financial inclusion enhances the flow of credit and a 0.2-0.6% increase in the investment-GDP ratio (Norris et al., 2015). A study noted that All-India Debt and Investment Survey found that women are not properly accessing institutional credit (Ghosh & Vinod, 2017). And gender is an important factor in the macroeconomic outcome, including economic development (Duflo, 2012). In addition, gender equality influenced around 40% of the growing gap between East Asia and the Pacific (Klasen & Lamanna, 2008). A study attempts to analyse the Indian context and found that an increase in the ratio of female managers to male managers by 10% leads to rising productivity by 2% (Esteve & Volart, 2004). On the saving aspect, it is identified that an increase in female wage share by 1% ensures the overall savings in GDP by 0.25% (Seguino & Crown, 2006). The results of the research conclude that the incidence of indebtedness is competitively high in female-headed households than the male-headed households (Rajeev et al., 2011). 58% of women across the world have an account in banks and other formal financial institutions (Kunt et al., 2015). And the use of banking services by Urban women are comparatively higher than that of women in rural area and they have higher income and wealth (Beck & Brown, 2011).

The purpose of the study is to empirically understand what are the different literature explaining the matter of financial inclusion of urban and rural women. There are many studies addressing the matter of financial inclusion of women at the national and international levels. But the studies comparing the financial inclusion of Urban and Rural women's households are very hardly seen. The researcher started the research based on the relevant research gap.

4. Objectives of the study

The study begins with many questions among them the following objectives were drawn

1. To find out the difference in the financial inclusion of Rural and Urban households in the Wayand.
2. To find out any linearity between the age and use of innovative services by the respondents.

5. Significance of the study

The Woman is a significant part of a community. Their role in social life shouldn't be undervalued. They look after their family and the children. They wanted to be equal

consideration with the men. The financial unawareness and insecurity of women are the most important problems in society. They are ignored at their workplace and even at their home. The Wayanad District has many disadvantages. Locational backwardness, Lack of economic opportunities, educational backwardness etc are some of them. In the Wayanad most of the people are living in the rural areas. Firstly, the study got significant due to it is addressing the matter of Women in the Wayanad district. Secondly, it is discussing the matter of financial inclusion of Women. Financial inclusion is treated as an important yardstick to assess the economic maturity of every society. The study will help the Government and the policymakers to frame policies according to the requirements.

6. Data and Methods

The data was collected from both primary and secondary sources. Primary data has been collected from 200 samples by using the random sampling method. Among the 200 samples, 50% samples are from 3 major cities in Wayanad District. The survey is based on a structured questionnaire. The secondary data has been collected from various articles published in several national and international journals, official websites of RBI, The Ministry of Finance and various other literature. Tables and figures, percentage analysis, χ^2 test and other relevant statistical tools have been used for the study.

7. Hypothesis of the study

H0: There is no significant association between the age and use of innovative financial services by the Women in Wayanad.

H1: There is a significant association between age and the use of innovative financial services by the Women in Wayanad.

8. Result and Discussion

This section summarises the overall result of the study. Tables and Figures, Percentage analysis, Mean comparison and χ^2 test have been used to analyse various qualitative and quantitative variables.

8.1 Demographic features of the Variables

The survey result shows that 52% of households are in the age group of 30-40 years. 28% of respondents are in between the age group of 20-30 and the remaining includes the age group of 40-50. While considering the education status of the respondents the result shows that 65% of women in the Urban area have at least a pre-degree/plus two and among them 40% completed at least graduation. The educational status of the rural women shows that only 19% of the respondents have completed pre-degree/plus two and among them, only less than 30% graduated. Most Rural women are not even completed SSLC.

Table no.8.1.1

Average monthly income of the households

Parameters	Income of Rural households	Income of Urban households
Mean	11200	29500
N	100	100
Minimum	6600.00	14500.00
Maximum	24000.00	95000.00

The income of the households influences the access and use of financial services. From the available data, it cannot be noted that the mean income of Urban households shows a greater deviation from the mean income of Rural households. The minimum income earning capacity

of the rural household is Rs.6600, while it is Rs.14500 for Urban households. The maximum income for Rural and Urban households shows Rs.24000 and Rs.95000 respectively.

8.2 Financial inclusion of household Women in Wayanad District

Financial inclusion is a process that makes sure that everyone in an economy may easily access, use, and be a part of the official financial system. To measure the degree of financial inclusion the result is to be analyzed based on access and use, and the efficiency of using financial services.

Table No.8.2.1

Access and use of financial services

Access and use of financial products	Rural women			Urban Women		
	Use%	Not Use%	Total	Use%	Not Use%	Total
Saving bank account	74	26	100	100	0	100
Recurring Deposit	12	88	100	35	65	100
Current Account	0	100	100	9	91	100
Zero balance (Salary account)	6	94	100	23	67	100
Fixed Deposit	5	95	100	21	79	100
No frill account	36	64	100	85	15	100
JDY Account	89	11	100	74	26	100
Life insurance	78	22	100	95	5	100
Agricultural loan	63	27	100	18	82	100
Gold loan	36	64	100	37	73	100
Personal loan	8	92	100	25	75	100
Mobile banking Wallets	65	35	100	93	7	100
E-banking	6	94	100	28	72	100
ATM	60	40	100	100	0	100

Source: Primary Data

Table no.8.2.1 indicate the picture of access and use of banking services by the rural and urban women in the study area. It could be noted that there is a greater degree of disparity in accessing banking services between rural and urban women. The result shows that there is a great change in the access and use of financial services between urban and rural women. The urban women use all the financial services rather than the rural women except the agricultural loan. The result announced that the rural women in Wayanad District are financially excluded.

8.3 Frequency of use of financial services

The quality of using financial services can be assessed with the help of the frequency of using the financial services by the respondents. The comparative analysis of the frequency of using financial services by urban and rural women is exhibited in the following table.

Table 8.3.1

Frequency of use of financial services

Rural Women (In %)	Daily	Weekly	Monthly	Rarely	Never
Deposit of Money	3	9	13	63	12
Withdrawal of money		3	20	75	2
Use of mobile banking wallets	5	9	16	36	35

Internet banking facility	0	0	0	3	97
ATM facility	0	5	30	62	3
Urban Women (In %)	Daily	Weekly	Monthly	Rarely	Never
Deposit of Money	15	14	34	37	0
Withdrawal of money	10	12	53	23	2
Use of mobile banking wallets	12	28	35	22	3
Internet banking facility	0	2	6	17	75
ATM facility	8	10	46	35	1

Source: Primary data

Table.8.3.1 shows the usage efficiency of various financial services. The table indicates a comparative analysis of the data. It can be judged that there is a gap in the usage efficiency of financial services between Urban and rural women. Urban women use financial services more frequently than rural women. Rural women have much less access to mobile banking wallets than urban women.

8.4 Age and Use of Innovative financial services.

Here the researcher attempts to check the is there is an association between age and the use of innovative financial services by the respondents. It Covers the data relating to the use of ATMs, Credit, Mobile banking and internet banking facilities.

Table.8.4.1

Age and use of innovative banking services

Age/Use of services	20-30	30-40	40-50	Total
Use of ATM/Credit card facility only	18	22	13	53
Mobile banking/internet banking	17	13	5	35
Both of the above	66	29	14	109
Total	101	64	32	197

Source: Primary data

Table 8.4.1 indicates the relationship between the age and use of innovative banking services. For establishing an association between these variables χ^2 test of independence can be performed. The result of the study can be placed in the following table.

Table.8.4.2

χ^2 value

O	E	(O-E) ²	(O-E) ² /E	χ^2 value=11.13, 5% level of significance
18	27	81	03	
22	17	25	1.47	
13	8.7	18.5	2.16	
17	18	01	.05	
13	11.4	2.56	.22	

05	5.7	.49	.086	
66	56	100	1.79	
29	35	36	1.02	
14	18	16	1.33	

Source: Computed Value

Table 8.4.2 reveals the χ^2 value is 11.13. The table value is 9.49 at the degree of freedom 4, here the calculated value is greater than the table value and the researcher can reject the null hypothesis and conclude that there is a significant association between the age and use of innovative financial services by the respondents.

9. Conclusion

The study discusses the role of financial inclusion to empower women. Financial inclusion refers to the provision of banking services at a reasonable price to the great majority of underprivileged and low-income groups. The availability of financial services aids in the social and economic advancement of women. It is highlighted that financial inclusion and access to financial services affect women's social and economic empowerment, which in turn leads to their total empowerment. This study found that even though urban women are financially included to a particular level, there is a greater level of financial exclusion among rural women in the Wayanad district. Based on the geographical characteristic of the Wayanad district, a vast majority of women are living in rural areas. Due to the aforesaid reason, the researcher concluded that the women in the Wayanad district are still financially excluded to some extent. The Government and the authorities should take and implement innovative financial inclusion measures to attain the aim of complete financial inclusion of women.

References

- Aghion, P., & Bolton, P. (1997). A theory of trickle-down growth and development. *The review of economic studies*, 64(2), 151-172.
- Aghion, P., Boustan, L., Hoxby, C., & Vandenberg, J. (2009). The causal impact of education on economic growth: evidence from the US. *Brookings papers on economic activity*, 1(1), 1-73.
- Allen, F., Demirci-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, 27, 1-30.
- Anand, S., & Chhikara, K. S. (2013). A theoretical and quantitative analysis of financial inclusion and economic growth. *Management and Labour Studies*, 38(1-2), 103-133.
- Arnold, J., & Gammage, S. (2019). Gender and financial inclusion: the critical role for holistic programming. *Development in Practice*, 29(8), 965-973.
- Balasubramanian, S. A., Kuppasamy, T., & Natarajan, T. (2018). Financial inclusion and land ownership status of women. *International Journal of Development Issues*.
- Barik, R., & Sharma, P. (2019). Analyzing the progress and prospects of financial inclusion in India. *Journal of Public Affairs*, 19(4), e1948.
- Bayoumi, T., & Melander, O. (2008). Credit matters: empirical evidence on US macro-financial linkages.
- Beck, T., & Brown, M. (2011). Which households use banks? Evidence from the transition economies.
- Bhatia, S., & Singh, S. (2019). Empowering women through financial inclusion: A study of an urban slum. *Vikalpa*, 44(4), 182-197.

- Cabeza-García, L., Del Brio, E. B., & Oscanoa-Victorio, M. L. (2019, November). Female financial inclusion and its impacts on inclusive economic development. In *Women's Studies International Forum* (Vol. 77, p. 102300). Pergamon.
- Chavan, P., & Birajdar, B. (2009). Microfinance and financial inclusion of women: An evaluation. *Reserve Bank of India Occasional Papers*, 30(2), 109-129.
- Dabla-Norris, M. E., Ji, Y., Townsend, R., & Unsal, M. F. (2015). *Identifying constraints to financial inclusion and their impact on GDP and inequality: A structural framework for policy*. International Monetary Fund.
- Dar, A. B., & Ahmed, F. (2020). Financial inclusion determinants and impediments in India: insights from the global financial inclusion index. *Journal of Financial Economic Policy*.
- Demirgüç-Kunt, A., Klapper, L. F., & Singer, D. (2013). Financial inclusion and legal discrimination against women: evidence from developing countries. *World Bank Policy Research Working Paper*, (6416).
- Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature*, 50(4), 1051-79.
- Kapoor, A. (2014). Financial inclusion and the future of the Indian economy. *Futures*, 56, 35-42.
- Kaur, S., & Kapuria, C. (2020). Determinants of financial inclusion in rural India: does gender matter? *International Journal of Social Economics*.
- Klasen, S., & Lamanna, F. (2008). *The impact of gender inequality in education and employment on economic growth in developing countries: Updates and extensions* (No. 175). IAI Discussion Papers.
- Lahiri Chavan, A., Arora, S., Kumar, A., & Koppula, P. (2009, July). How mobile money can drive financial inclusion for women at the Bottom of the Pyramid (BOP) in Indian urban centres? In *International Conference on Internationalization, Design and Global Development* (pp. 475-484). Springer, Berlin, Heidelberg.
- Leyshon, A., & Thrift, N. (1995). Geographies of financial exclusion: financial abandonment in Britain and the United States. *Transactions of the Institute of British Geographers*, 312-341.
- Maity, S., & Sahu, T. N. (2020). Role of public sector banks towards financial inclusion during pre and post introduction of PMJDY: a study on efficiency review. *Rajagiri Management Journal*.
- Mishra, D. K., Malik, S., Chitnis, A., Paul, D., & Dash, S. S. (2021). Factors Contributing to Financial Literacy and Financial Inclusion among Women in Indian SHGs. *Universal Journal of Accounting and Finance*, 9(4), 810-819.
- Ozili, P. K. (2021, October). Financial inclusion research around the world: A review. In *Forum for social economics* (Vol. 50, No. 4, pp. 457-479). Routledge.
- Rajeev, M., Vani, B. P., & Bhattacharjee, M. (2011). *Nature and dimensions of farmers' indebtedness in India and Karnataka*. Institute for Social and Economic Change.
- Rogaly, B., & Fisher, T. (1999). Poverty, social exclusion and microfinance in Britain.
- Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. *World Development*, 56, 1-15.
- Wallace, S. P., Levin, J., Villa, V., & Beck, J. C. (1998). The need for an increased emphasis on health and ageing in public health education. *Gerontology & Geriatrics Education*, 18(4), 45-62.
- World Bank. (2020). *Global economic prospects, June 2020*. The World Bank.

PERCEPTION OF TEACHERS TOWARDS THE BEHAVIOUR INTENTION TO USE ICT DURING COVID ERA

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ABSTRACT

The study of information and communication technology (ICT) is a vital area for employees in the service sector during this COVID - 19 pandemic as we experience such a pandemic for the first time. The COVID- 19 adversely affected the lives of people in all walks of life & millions of children around the world are isolated from their school & academic lives. The schools which were once treated as an ultimate status symbol, now have changed their purpose. Now most of the schools work as a platform for providing online classes. The pandemic has brought about a profound change in society especially in the way individuals think. It remains a fact that the behavior of teachers during contingencies has a profound impact on society as a whole and children and educational institutions in particular. In the current education system, the progressive development of ICT during the COVID- 19 pandemic empowers the teaching community to access students beyond the classroom knowledge sharing. However, teachers are not familiar with the content of ICT materials and this brings a burden for facilitators on teaching the technology. The purpose of the present study is to apply the technology acceptance model to determine the intention of teachers to use ICT during the COVID-19. This study was conducted among the selected CBSE Schools in the central region of Kerala. The study revealed that COVID-19 created a positive intention to use ICT in this pandemic situation.

Keywords: *Digitalisation, Behaviour intention, ICT, COVID-19, Pandemic*

INTRODUCTION

COVID – 19 is an infectious disease caused by a newly discovered coronavirus (WHO) in 2019. The COVID – 19 has spread all over the world and compelled human beings to uphold social distancing. Most of the countries around the world, as well as India, had announced lockdown in an attempt to reduce the spread of the coronavirus which resulted in a complete shutdown of educational institutions. Owing to COVID- 19, educational institutions were closed by the 2nd week of March 2020 in Kerala, the southern state of India. Initially, educational institutions were confused and did not even understand how to cope up with the crisis of closure of educational institutions. Though the lockdown disrupted the education sector, the coronavirus pandemic has created a ray of hope for students and teachers to continue their academic activities online. Earlier studies have proved that COVID – 19 created many opportunities for educational institutions to strengthen their technological facilities and infrastructure (Jena, 2020). Since the beginning of the year, the world has witnessed a tremendous rise in the acceptance of work from home culture, among employees all around the world advocating them to utilize ICT in the face of COVID-19.

ICT is an umbrella term that comprehends all communication technologies such as software tools, satellite communication, digital television, internet, wireless network which make

available to access information. Backinsale and Ram (2006) defined ICT as any technology used to support information gathering, processing, distribution, and use. ICT provides a platform for sharing knowledge (Rodriguez and Casal, 2007) and the progressive development of ICT applications empowers the students and teachers' community to access the world beyond classroom learning. (Flex, 2008). There are numerous ICT applications made available by the information technology sector for our daily life. But few specific ICT tools are used abundantly by the education sector. Bhattacharya & Sharma (2007) highlighted the ICT tools available for an educational purpose such as email, teleconferencing, television, audio conferencing, interactive voice response system, etc. Hence, ICT is considered as a blend of technologies for collecting, storing, communicating and delivering information. In normal conditions, the aim of ICT integration is to support classroom learning (Howard, Cornuel, Thomas & Thomas, 2012) to be more flexible and effective. During the COVID – 19, the role of ICT integration has touted as a powerful tool for educational change and reform.

Intention is an individual's readiness to do a specific behavior(Ajzen,1991). It explains his/her intention either to perform or not to perform a behavior. In this study, intention refers to the extent to which teachers intend to use ICT for knowledge sharing in the future. Technology Acceptance Model (TAM) is one of the most influential research models that explain technology acceptance and the intentions to use the system. The technology acceptance model developed by Davis (1989) states that the success of a system can be determined by user acceptance of the system. In TAM behavior intention is determined by 3 determinants such as perceived usefulness(PU), perceived ease of use(PEOU) and attitudes towards usage(ATU) of the system(Davis, 1989). Attitude explains an individuals' belief in outcomes either positive or negative which has been resulted due to the experience towards the specific behavior. Perceived usefulness denotes the extent to which an individual thinks that the use of a system will improve his or her job performance. Perceived Ease of Use indicates the degree to which the same person feels that the system usage is effortless for him. According to the model, users' perceptions about the system's usefulness and ease of use result in an intention to use the system (Davis, Bagozzi&Warshaw, 1989). The purpose of the study is to understand behaviour intention of faculty members towards the usage of ICT for the technology enabled teaching purpose.

THEORETICAL FRAMEWORK AND HYPOTHESIS

The various researchers have conducted many empirical studies on determinants that influence ICT adoption by the teachers. The literature review was carried out with primary emphasis on the determinants such as perceived usefulness, perceived ease of use, and attitude towards usage which would strengthen the intention to use the ICT.

Perceived usefulness

Davis et al., (1989) defined perceived usefulness as “prospective user’s subjective probability of using a specific application will increase his job performance”. In this study perceived usefulness is the level to which teachers consider ICT application will increase their job performance. Irrespective of an individual’s attitude towards the system, his experience of relative advantage in the system would improve the intention to use the system(Venkatesh,2000; Venkatesh & Davis, 2000). Perceived usefulness has a significant direct effect on behavioural intention which was empirically proved in the various context of studies.(Al-Gahtani,2006; Faqih &Jaradat 2015; Al harbi& Drew, 2014).Therefore, the hypothesis(H₁) -“perceived usefulness significantly influences behaviour intention to use the ICT” is formed.

Perceived ease of use

Davis, Bagozzi & Warshaw (1989) described Perceived ease of use as “the degree to which the prospective user expects that the target system to be free of effort”. In this study, perceived ease of use refers to the level to which a teacher is convinced that ICT use is easy and beneficial. As the degree of ease of use towards the system increases, the intention to use the system would improve positively among the users (Davis, Bagozzi & Warshaw, 1989). The fact that Perceived ease of use has a significant direct effect on behaviour intention, was empirically proved by many researchers in the various context of studies (Al Gahtani, 2016; Faqih & Jaradat, 2015). Therefore, the hypothesis(H₂)- “perceived ease of use significantly influences behaviour intention to use the ICT” is formed.

Attitude towards use

Fishbein and Ajzen(1975) defined attitude towards behavior as “an individual’s feelings about performing the target behavior”. In this study, attitude towards ICT refers to the teachers feeling either positive or negative which has been resulted due to the experience towards the usage of ICT, which in turn heightens the intention to use ICT. The strong effect of attitude on intention was supported by many information system researchers (Taylor and Todd, 1995; Tan, Potamites & Wens-chi, 2012; Al-Adwan, Al-Adwan & Smedley, 2013). The perceived usefulness is considered as one of the factors that determine behaviour belief of attitude (Davis, 1986) in the context of the information system. The direct effect of perceived usefulness has been evidenced to influence attitude towards usage (Bagozzi, 1982; Ashraf, Thongpapani, Auh, 2014; Brinberg, 1979). Therefore, the hypothesis(H₃) - “attitude towards usage mediates the relationship between perceived usefulness and behaviour intention to use the ICT” is constructed.

According to the studies of Davis et al., (1989) and Venkatesh et al., (2003) when technology is viewed as being easy to use, it is likely that an individual will develop a positive attitude towards it. The strong effect of perceived ease of use on attitude was supported by many information system researchers (Al harbi & Drew, 2014; Ashraf, Thongpapani, Auh, 2014). Therefore, the hypothesis(H₄)-“attitude towards usage mediates the relationship between perceived ease of use and behaviour intention” is constructed.

RESEARCH GAP

The prior research on ICT integration by the teachers had investigated the following research issues such as factors affecting users’ adoption of ICT tools (Rosaline and Wesley, 2017) and the determinants that influence the ICT adoption (Shehzadi et al., 2020; Bui, 2020; Tiwari, 2020; Makewa et al., 2014; Yeop, 2019;). Though there exist studies measuring the intention of teachers to use ICT in the higher education sector, no prior research endeavour has investigated the intention to use ICT by the teachers in higher secondary education. Hence the present study explores the factors that influence the intention to use ICT by the teachers in higher secondary education in the context of COVID -19 pandemic.

OBJECTIVES

Following are the specific objectives of the present study;

1. To examine the factors that determine the behaviour intention to use ICT by the teachers during the COVID – 19 outbreaks.
2. To ascertain the mediating role of attitude in the relationship between teachers' intention to use ICT with TAM dimensions of perceived ease of use and with perceived usefulness.

HYPOTHESIS

In view of the above objectives, the following hypotheses are developed,

H₁ Perceived usefulness significantly influences behaviour intention to use the ICT

H₂ Perceived ease of use significantly influences behaviour intention to use the ICT

H₃ attitude towards usage mediates the relationship between perceived usefulness and behaviour intention to use the ICT

H₄ attitude towards usage mediates the relationship between perceived ease of use and behaviour intention to use the ICT.

METHODOLOGY

The present study is descriptive in nature. The population of the study comprises higher secondary teachers from the aided schools in the state of Kerala. For the present study, few aided higher secondary schools located in Ernakulam district were selected. Judgemental sampling was used to draw the samples. The primary data were collected using a structured questionnaire which was sent to the sample respondents online on the Google platform. The data were collected from 200 respondents during the month of November 2020. The scale for measuring intention, attitude, perceived ease of use, and perceived usefulness was adapted from the work of Davis (1989). The reliability of the questionnaire was calculated using Cronbach alpha and found ranging from .863 to .789(Annexure I). This range exceeds the reliability estimates(Alpha =.70) recommended by Nunnally and the data were analysed using SPSS software version 22. The test of normality was confirmed through the symmetric distribution, analysis of skewness, and kurtosis. In symmetric distribution, the values of mean and median of all the variables were approximately equal (Annexure II), then data were considered to be symmetrically (normally) distributed. In the measure of skewness and kurtosis, data under study (Annexure II) fall within the range of -1.96 to +1.96(Cramer, 1998) and are normally distributed. Hence structural equation modeling was used for confirming the hypothetical relationship between the factors that influence the behaviour intention to use ICT in the context of COVID – 19 Pandemic.

RESULTS AND DISCUSSION

Structural equation modeling technique following a 2 stage analysis in which the first stage evaluates the measurement model and in the second stage structural equation model is tested (Anderson & Gerbing, 1988).

In stage one, a measurement model was constructed in order to measure the validity of the scales used in this study. Perceived usefulness was measured using items PU1 to PU 4. Items, PEU1 to PEU4 were engaged in measuring perceived ease of use. ATT1 to ATT3 contributed to the variable attitude for use and behaviour intention was defined by items BI1 to BI4. Accordingly, the study estimated standardized factor loading, Average variance extracted (AVE) of the hypothesized constructs. In this study AVE scores obtained for each construct was >.50 and significant ($p < .001$) on the respective construct. These results(Annexure III) supported the evidence of the convergent validity of the constructs used in this study. To confirm the discriminate validity, all AVE values were compared with squared correlation values between the respective constructs. It is found that all AVE values were greater than the squared correlation values (Fornell & Larcker, 1981) and the results reported in (Annexure IV) established the discriminant validity.

In stage 2, the structural equation model(SEM) was constructed to test the relationship between the latent constructs such as perceived usefulness, perceived ease of use, attitude towards usage, and behaviour intention. An SEM technique following AMOS 23 version with maximum likelihood estimator was used to test the relationship between the latent constructs. In this stage, the study tested the direct effect model first, followed by the partial mediation model. The direct effect considers that perceived ease of use and perceived usefulness act as

an antecedent to attitude towards usage and these dimensions determine users' intention to use ICT.

H₁ Perceived usefulness significantly influences behaviour intention to use the ICT

The results of the analysis found supporting direct relationship between perceived usefulness and behaviour intention to use ICT.

Values of the hypothesis testing results are exhibited in Table No.1.

Table 1			
Hypotheses testing results			
Path(direct effect)	Estimates(S.E)	P value	Standardised regression estimates
Behaviour intention <--Perceived usefulness	0.253(.119)	.000	0.85

Perceived usefulness (beta = 0.253, Standard Error = 0.119, $p < 0.000$) support the direct relationship between perceived usefulness and behavior intention. These results support the hypothesis (H₁) that in a higher secondary school context, perceived usefulness significantly influences teachers' intention to use ICT. Hence H₁ is proved.

H₂ Perceived ease of use significantly influences behaviour intention to use the ICT

The results of the analysis given below found supporting direct relationship between perceived ease of use and behaviour intention to use ICT. Values of the hypothesis testing results are exhibited in Table No.2.

Table 2			
Hypotheses testing results			
Path(direct effect)	Estimates(S.E)	P value	Standardised regression estimates
Behaviour intention <--Perceived ease of use	0.759(.057)	.000	0.82

Perceived ease of use (beta = 0.759, Standard Error = 0.057, $p < 0.000$) support the direct relationship between perceived ease of use and behavior intention. These results support the hypothesis (H₂) that in a higher secondary school context, perceived ease of use significantly influences teachers' intention to use ICT. Hence H₂ is proved.

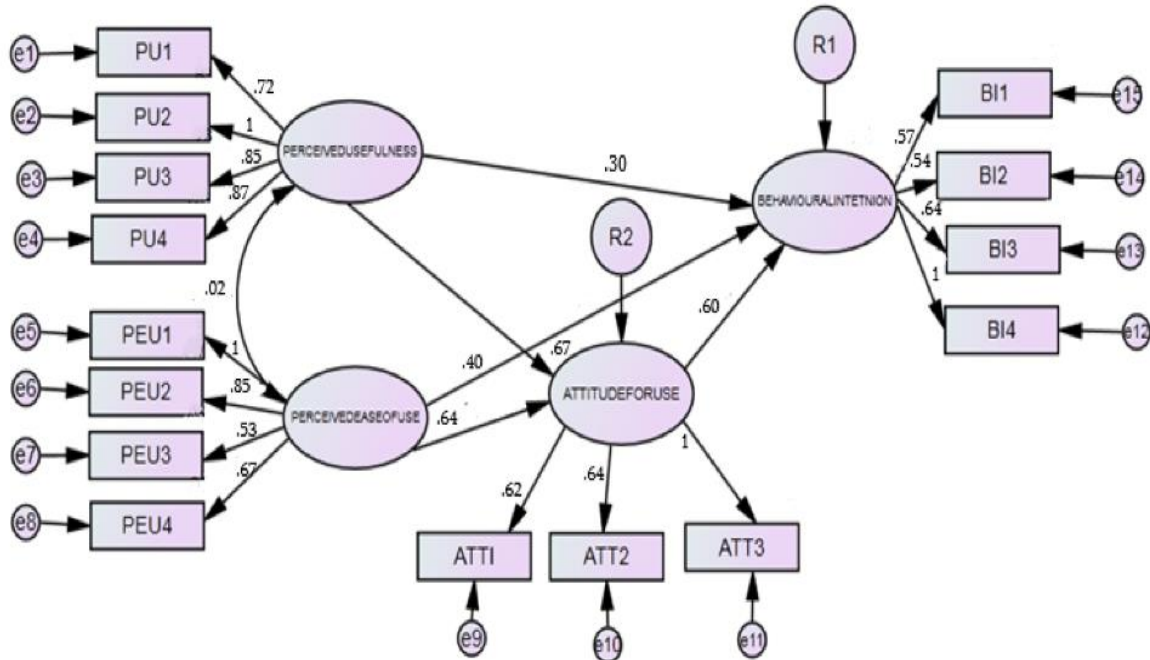
As a part of hypothesized testing, the study evaluated the direct effect model based on the model fit indices. The chi square test of the measurement model is found to be significant ($\chi^2 = 200.084$, $p < 0.01$), since the value of the ratio of Chi square to degree of freedom (CMIN/DF = 3.825) are in the acceptable level the model can be considered having enough model fit. Apart from other indices like Goodness of fit, comparative fit indices, and parsimonious fit indices were examined. It was found that all indices (NFI = 0.870, RFI = 0.782, IFI = 0.938, TLI = 0.860, CFI = 0.877, RMSEA = 0.065) are within the generally acceptable limits which shows that direct effect model achieved a satisfactory fit to the data. Therefore, the study decided to go on the mediation model for further hypothesis testing.

The mediation model (Indirect effect model) was estimated to test the impact of perceived usefulness and perceived ease of use was mediated by the attitude towards usage of ICT.

The structural model is shown in figure No.1.

Figure No.1

Structural model showing the mediating effect of attitude on behaviour intention



Examination of the indirect effect model based on model fit indices(CMIN/DF=4.602,NFI = 0.778, RFI = 0.796, IFI = 0.830, TLI = 0.950, CFI = 0.880, RMSEA = 0.079) revealed that all indices are within generally acceptable limits which provide a sufficient evidence for model fit. After validating the structural model through various indices, this study further proceeds with the kind of mediating relationship for further hypothesized testing.

H₃ attitude towards usage mediates the relationship between perceived usefulness and behaviour intention to use the ICT.

The following analysis shows that indirect effect of perceived usefulness and behaviour intention through attitude towards usage of ICT supports the H₃. Values of the hypothesis testing results are exhibited in Table No.3.

Path(direct effect Mediation)	Estimates(S.E)	P value	Standardised regression estimates
Behaviour intention <--Perceived usefulness	0.573(.167)	.00	0.470
Behaviour intention <--Attitude towards use	0.460(.129)	.00	0.612
Attitude towards usage<-- Perceived usefulness	0.849(.093)	.00	0.785
Path(Indirect effect Mediation)			
Behaviour intention <--Attitude towards use <--Perceived usefulness		.00	0.48

From the inspection of the estimates of the indirect effect table, it is found that there is a significant indirect effect ($\beta = .48 = (.785 * .612)$, $p < .001$) of perceived usefulness on behaviour intention through attitude towards use. Thus H_3 is accepted. With the presence of a mediating variable, the direct effect of perceived usefulness on behaviour intention has come down from $\beta_1 = .85$ (Table 1) to $\beta_2 = .47$ (Table 3) This represents the mediating effect of attitude. Had the P been $>.05$, the interpretation would have been attitude fully mediates between perceived ease of use and behaviour intention. Here P is $.00$, which indicates that there exist only partial mediation between perceived ease of use and behaviour intention.

H₄ attitude towards usage mediates the relationship between perceived ease of use and behaviour intention to use the ICT

The results of the analysis found supporting the indirect effect of perceived ease of use and behaviour intention through attitude towards usage of ICT. Values of the hypothesis testing results are exhibited in Table No.4.

Hypotheses testing results			
Path(direct effect Mediation)	Estimates(S.E)	P value	Standardised regression estimates
Behaviour intention <--Perceived ease of use	0.528(.071)	.00	0.58
Behaviour intention <--Attitude towards use	0.460(.129)	.00	0.612
Attitude towards usage<-- Perceived ease of use	0.65(.08)	.00	0.757
Path(Indirect effect Mediation)			
Behaviour intention <--Attitude towards use <--Perceived ease of use		.00	0.47

From the inspection of the estimates of the indirect effect table, it was found that there is a significant indirect effect ($\beta = .47 = (.757 * .62)$, $p < .001$) of perceived ease of use on behaviour intention through attitude towards use. Thus H_4 is accepted. With the presence of a mediating variable, the direct effect of perceived ease of use on behaviour intention has come down from $\beta_1 = .82$ (Table 2) to $\beta_2 = .58$ (Table 4) and become significant also. Had the P been $>.05$, the interpretation would have been attitude fully mediates between perceived usefulness and behaviour intention. Here P is $.00$, this indicates that there exist only partial mediation between perceived usefulness and behaviour intention.

FINDINGS OF THE STUDY

Major findings arrived at after testing of hypotheses shows that the relationship of teachers' intention to use ICT with a selected number of factors of TAM dimensions(perceived usefulness, perceived ease of use and attitude toward usage).This study observed that perceived usefulness and perceived ease of use create a positive intention to accept ICT technology. It is also found that there exists a partial mediating effect of attitude in the relationship between perceived usefulness, perceived ease of use and behaviour intention. Perceived usefulness and perceived ease of use has significantly influenced teachers' behaviour intention.

DISCUSSION AND IMPLICATION OF THE STUDY

The present study was carried out to assess teachers' intention to use ICT during the COVID – 19 outbreak. The main finding was that all four constructs of the TAM model significantly influence teachers' intention to use ICT technology. The results are consistent with the findings of the previous studies (Taylor and Todd, 1995; Tan et al.,2012; Teo et al.,2009; Al-adwan et al.,2013). This implies that teachers employed in secondary education in Kerala believe that ICT learning is useful and will enable them to accomplish their teaching activities easier with requisite technical support. Therefore, educational institutions are advised to pay attention to the quality of ICT resources deployed in learning platforms as well as developing tools that will support teachers in their technology enabled teaching process.

LIMITATION AND FUTURE SCOPE OF THE STUDY

The study has certain limitations. This study has been conducted in the educational sector. The results of the study could not be generalized to other sectors. The study mainly covers the teacher's intention to use ICT during the COVID-19 pandemic. Future studies can be conducted on various aspects of the pandemic and its impact on parents' attitudes towards the usage of ICT in academics. This paper considered the effect of mediating variables presented in the TAM model. This study recommends that future studies should address the effect of moderating variables present in the TAM model.

CONCLUSION

The study was conducted to analyse the behavioral intention of teachers towards ICT integration during the COVID-19 pandemic. India's school education is progressing but is far from world-class. Effective ICT in the learning process can help in bridging the gaps. Teachers spend a lot of time interacting online with students due to the school closure, but in fact, it limits productive contact with academics. Teachers have access to technology and their attitude towards its usage reflects in their academic outcomes. The institutes which strive to integrate ICT in the teaching process should focus on both the intrinsic and extrinsic motivation of the teachers. The intrinsic motivation could be improved by providing a proper training program on emerging ICT tools by the management would direct them to enjoy the benefits of the usefulness of technology in the teaching process. Secondly, the experience over technology would improve the benefits of perceived ease of use. The research model predicts that when teachers use technology for academic purposes, they are more concerned about the usefulness and ease of technology. The empirical findings of the study observed that perceived usefulness and ease of use of technology create a positive intention among the teachers to accept ICT technology.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Al-Adwan, A., Al-Adwan, A., & Smedley, J. (2013). Exploring students acceptance of e-learning using Technology Acceptance Model in Jordanian universities. *International Journal of Education and Development using ICT*, 9(2).
- Al-Gahtani, S. S. (2016). Empirical investigation of e-learning acceptance and assimilation: A structural equation model. *Applied Computing and Informatics*, 12(1), 27-50.

- Alharbi, S., & Drew, S. (2014). Using the technology acceptance model in understanding academics' behavioural intention to use learning management systems. *International Journal of Advanced Computer Science and Applications*, 5(1), 143-155.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Ashraf, A. R., Thongpapani, N. and Auh, S. (2014), 'The application of the technology acceptance model under different cultural contexts: The case of online shopping adoption', *Journal of International Marketing* 22(3), 68-93.
- Bagozzi, R. P. (1982). A field investigation of causal relations among cognitions, affect, intentions, and behavior. *Journal of marketing research*, 19(4), 562-584.
- Beckinsale, M., & Ram, M. (2006). Delivering ICT to ethnic minority businesses: an action-research approach. *Environment and Planning C: Government and Policy*, 24(6), 847-867.
- Bhattacharya, I., & Sharma, K. (2007). India in the knowledge economy—an electronic paradigm. *International journal of educational management*.
- Brinberg, D. (1979). An examination of the determinants of intention and behavior: A comparison of two models. *Journal of Applied Social Psychology*, 9(6), 560-575.
- Bui, T. H., Luong, D. H., Nguyen, X. A., Nguyen, H. L., & Ngo, T. T. (2020). Impact of female students' perceptions on behavioral intention to use video conferencing tools in COVID-19: Data of Vietnam. *Data in Brief*, 32, 106142.
- Faqih, K. M., & Jaradat, M. I. R. M. (2015). Assessing the moderating effect of gender differences and individualism-collectivism at individual-level on the adoption of mobile commerce technology: TAM3 perspective. *Journal of Retailing and Consumer Services*, 22, 37-52.
- Fishbein, M., & Ajzen, I. (1975). *Intention and Behavior: An introduction to theory and research*.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Howard, T., Cornuel, E., Thomas, M., & Thomas, H. (2012). Using new social media and Web 2.0 technologies in business school teaching and learning. *Journal of Management Development*.
- Jena, P. K. (2020). Impact of Pandemic COVID-19 on education in India. *International Journal of Current Research (IJCR)*, 12.
- Rosaline, S., & Wesley, J. R. (2017). Factors affecting students' adoption of ICT tools in higher education institutions: An Indian context. *International Journal of Information and Communication Technology Education (IJICTE)*, 13(2), 82-94
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.
- Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research*, 11(4), 342-365.
- Venkatesh, V. and Davis, F. D. (2000), 'A theoretical extension of the technology acceptance model: Four longitudinal field studies', *Management Science* 46(2), 186-204.
- Yeop, M. A., Yaakob, M. F. M., Wong, K. T., Don, Y., & Zain, F. M. (2019). Implementation of ICT Policy (Blended Learning Approach): Investigating Factors of Intention and Use Behaviour. *International Journal of Instruction*, 12(1), 767-782.

FACTORS AFFECTING PROJECT SUCCESS: A STUDY AMONG PROJECT MANAGERS IN IT SECTOR

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Abstract

In India, IT sector is booming in the economy. The work nature of this section is mostly project based. In IT, project management can be described as the process of planning, organizing, controlling and implementing responsibilities for achieving the organization's specific goals. A project manager has the overall responsibility for the successful initiation, planning, design, execution, monitoring, controlling and closure of a project. This study focuses on finding out the factors that affect the project success and the role played by the project manager in the functioning of a project. The objective of the study was to find out the effect of communication, feedback, resource levelling, monitoring & feedback and personal factors on the project success. The research design is cross sectional and the researcher took the sample size of 59 project managers from Technopark. For gathering the information researcher used structured questionnaire. It is found that monitoring and evaluation and personal factors have a major effect on project success. Project managers must have good skills to manage the team members. Resource levelling doesn't affect much with the functioning of the project even though it has a major role on the success of a project.

Key words: IT sector, Project Manager, Project Management, Resource levelling, Project Success.

1. Introduction

The Information Technology industry has drastically grown within the last decade. In response to this up surging capacity demand, the need to focus on effective project management strategies has become mandatory. In IT, project management can be described as the process of planning, organizing, controlling and implementing responsibilities for achieving the organization's specific goals. In an IT organization, project management includes overseeing projects for hardware development, software development, network upgrades, cloud computing, data management, business management projects and more. The projects may be anything from developing of a software installation of an equipment, creating and developing new ways of meeting demand for energy, recreation, housing, communications, transportation and food or to resolve problems of pollution and disease. Human resource management is one of the most crucial elements of an organisation's success. There are many projects that have been discarded due to the lack of human resources, raw materials, financial crisis and all. So, this study aims to understand about how the project managers dealt with the employees involved in a project and that has completed successfully and about the elements to be taken care by the project managers in an organisation in dealing with team members which helps in the successful completion of a project within a stipulated time and how the employees can be managed within the available supply. A project may involve a lot of members directly or indirectly and so failure of the project due to lack of human relations will not be preferred by many of the project managers. So, it is relevant to study on the factors that the project managers take up to manage the human resources involved in the project and it will be useful to the future project managers who are new to this field.

2. Review of Literature

Project management is the defining factor for a company's success and determines potential risk in order to bring timely solutions. Due to rapid development in globalization, project management is expected to increase in the near future. An increasing number of companies are choosing to organise their work (or parts of their work) in projects. It seems that projects has become the method of choice for executing work-orders and assignments in an efficient and orderly manner, hence project orientation has grown increasingly popular. In the study of project business as a research field, Arto and Kujala stated that "project-based business activities are part of all private firms and public organizations", while others have claimed that as much as two thirds of the work carried out in companies is organized in projects (Karlesen, 2013).

In project management literature, the outcome of a project is frequently conceived of in terms of success or failure although identifying just what constitutes these can be problematic. In general there is lack of consensus on how to define success, lack of success and failure and despite their frequent use, such terms are perceived to be vague and difficult to measure. In Internal journal of projects management, Prabhakar (2008) further states that success or failure is not an absolute or black and white concept. Projects may be viewed as successful to varying degrees, depending on which success criteria are met.

Time dimension of assessing project success is the most common aspect brought out in the literature review. Project management organizations with mature time management practices produce more successful projects than project management organizations with less mature time management practices. Project time is the absolute time that is calculated as the number of days/weeks from start on site to practical completion of the project. Speed of project implementation is the relative time (Chan, 2001).

Completion of the project within the budget is another dimension that is used to measure project success. Chan (2001) states that cost can be computed in form of unit cost, percentage of net variation over final cost and so on. The project monitoring and evaluation team may control the costs using Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM) techniques. Another important dimension in project success includes customer satisfaction (Dvir, 2005). A project that in the final analysis leads to customer satisfaction would be said to be successful. Evaluating the performance of project is beneficial to both the stakeholders by enabling them to appraise the services received and to project manager by helping them to improve their services (Besner & Hobbs, 2008).

Communication is an essential tool in the field of project management. It is gaining importance every day and is the centre of all management processes soon. The success of a project largely depends on the efficiency of its communication network. It starts working from day one of the venture and continues for the entire life span of the project. It provides regular updates to notify the status of the project as well as its performance capacity. But surprisingly, it has been found that most projects experience a breakdown in communications. It has been said that 90% of a project manager's time is spent communicating what is going to be done.

Feedback is a powerful communications tool and must be used for both positive and corrective actions. People usually wait a long time to deliver feedback, and sometimes not at all. And when it comes to projects, timing is usually even worse. In a short project that is under 6 months, the typical mindset is to wait until after the project is over to deliver any poor performance feedback, since doing so may disrupt team dynamics and create ill will. Positive feedback is usually non-existent in short projects. The closest there is of any kind of feedback is a lessons learned document, and we all know how frequently lessons learned

documents are produced. Project feedback is an incredibly powerful tool that should be used to the project manager's advantage in order to deliver a successful project.

In project management, resource leveling is defined by A Guide to the Project Management Body of Knowledge (PMBOK Guide) as "A technique in which start and finish dates are adjusted based on resource constraints with the goal of balancing demand for resources with the available supply." A project requires resources to execute the activities. These resources include the labor, equipment and materials required to get the work done. Labor is the people, such as craft, engineers, programmers, systems analysts, etc. Equipment includes such things as cranes, test rigs, process simulators, etc. Materials includes such things as the concrete to be poured, the wire to be installed, etc. In the ideal world, resources are unlimited and available as required. Yet, resources are generally not unlimited and the project team needs to "level" out the use and consumption of resources.

Charles G. Kamau, Humam Bin Mohamed (2015) in their study says that another factor which has been conceptualized as having influence on project success and related to M&E is the approach used in monitoring and evaluating projects. In monitoring the project specifications, the monitoring team may check the progress of activities against the plan. They should review performance regularly and at the stipulated review points, and confirm the validity and relevance of the remainder of the plan. They may also be required to recommend adjustments to the plan if necessary in light of performance, changing circumstances, and new information, but remain on track and within the original terms of reference. The monitoring team should make sure that they use transparent, pre-agreed measurements when judging performance (Chapman, 2014).

Amir Hossein Fazel Bakhsheshi1, Safoora Rashidi Nejad (2011) conducted a comprehensive survey about project success, project managers' personality, project type and relation between them, impact of each managers' behavior on project success criteria. It is realized personal characteristics has an overall impact on project success. Study of other projects also present the same result. Also considering project types, it is important for choosing effective project managers. Client satisfaction is the most affected criterion based on parties' idea in case of urgent project, however in complex project, quality and satisfaction are the most ones prefer like normal project. For novel project, all parties agree that quality is criterion that project manager's personalities can effect on it.

3. Research Methodology

3.1 Objectives

General objective:

- A study the factors affecting project success among project managers in IT sector

Specific objectives:

- To understand the success rate of completed projects by project managers
- To find out the effect of communication on project success
- To determine the importance of feedback on project success
- To find out the effect of resource levelling on project success
- To document the importance of monitoring and evaluation on project success
- To determine the role of personal factors on project success

3.2 Variables

The dependent variable is the Project Success and the Independent variables are Communication, Feedback, Resource levelling, Personal factors, Monitoring and Evaluation.

3.3 Hypotheses

1. There exists a significant relationship between communication and its effect on project success

2. There exists a significant relationship between feedback and its effect on project success
3. There exists a significant relationship between resource levelling and its effect on project success
4. There exists a significant relationship between Monitoring and evaluation on project success
5. There exists a significant relationship between personal factors and its effect on project success

3.4 Research Design

The study follows a quantitative research methodology. The research design of the study is Cross Sectional design.

3.5 Sampling and Sample size

The universe of the study is project managers in IT sector. One project manager from the universe forms the unit of the study. Convenient sampling was used to collect data. The sample size is 59 project managers from various companies in IT sector.

3.6 Tools of Data Collection and Analysis

The researcher used two different questionnaires for data collection. One questionnaire was to collect data on the project success which comprised of 8 questions and other questionnaire which contains questions regarding the objectives of the study and comprised of 30 questions. SPSS-Statistical Package for Social Sciences was used for data analysis.

4. Data Analysis

4.1 Project Success Rate

Table 1.1 Project Success Rate

Project success rate	Frequency	Valid frequency
24	3	5.1
25	5	8.5
26	8	13.6
27	6	10.2
28	7	11.9
29	7	11.9
30	2	3.4
31	4	6.8
32	6	10.2
33	5	8.5
34	5	8.5
40	1	1.7

The first specific objective was to understand the success rate of completed projects by project managers. The projects that scored 30 to 40 were treated as having high success rate and that scored 24 to 30 were treated as having average success rate. It can be seen from the data that 36.6% of the projects were successful ideally and 64.4% was successful on an average rate.

4.2 Response on Communication

Table 1.2 Response on Communication

Factors	N	Mean	Std. Deviation
			.616
Face to face communication	59	4.38	
Communication among team members through social media	59	3.05	1.27
Communication helps employees to understand their roles	59	4.33	.756
Communication bring trust among them	59	4.37	.692
Listening to customers is an important ingredient	59	4.18	1.074
Informal communication plays a major role	59	3.79	.996

When the factors contributing to communication were analysed, most of the respondents responded that face to face communication play a major role in project success (M=4.38) and also it brings a trust among the team members (M=4.37). Proper communication helps the employees to understand their role in the project properly (M=4.33). Listening to customers is reflected as something as significant from the above table, as a considerable number responded in favour to it as being a factor (M=4.18). the Informal communication also plays a major role in project success (M=3.79). Even though social media play a role, it is not much important as other (M=3.05).

4.3 Response on feedback

Table 1.3 Response on feedback

Factors	N	Mean	Std. Deviation
Regular feedback of work	59	4.18	.730
Individual feedback	59	3.83	1.00
Improvements implemented	59	4.00	.946
Team wise feedback	59	3.98	.707

Only through proper feedback system, the team can work accordingly with the client's requirement. Majority of the respondents (M=4.18) opined that regular feedback to the performance improve the quality of the work and also the opinion or feedback by the expert which could be implemented to the work (M=4.00) improve the quality of the work which help to gain the trust of customers. Individual as well as team wise feedback provide good support to the project success (M=3.83 and 3.98 respectively) and helps to complete the same within a stipulated time.

4.4 Response on Resource Levelling

Table 1.4 Response on Resource Levelling

Factors	N	Mean	Std. Deviation
Balanced distribution of requirements	59	3.76	1.056
Project can be completed by effective use of resources	59	3.91	.933
Balancing demand for projects	59	3.83	.791

Effective resource levelling	59	3.59	1.052
Redistribution	59	2.813	1.195
Delay of project	59	3.033	.999

Resource levelling plays a major part in contributing to the success of the project. Majority of the respondents opinionated that balanced distribution of resources results in project success (M=3.76), also the project can be completed successfully by the effective use of resources (M=3.91) and it helps to balance the demand for projects (M=3.83). Some have the opinion that redistribution of resources may affect the project success (M=2.813) and leads to delay of project (M=3.033).

4.5 Response on Monitoring and Evaluation

Table 1.5 Response on Monitoring and Evaluation

Factors	N	Mean	Std. Deviation
Providing comments	59	3.94	.84
Allowing to work without restriction	59	3.5	1.088
M&E prevents employee to work better	59	2.32	.752

Monitoring and evaluation is the process of ensuring that the team members are working according to the prescribed format. Majority of the employees says that providing comments to the project work at each life cycle is effective for project success (M=3.94) and it motivate them to work better and respondents opinionated that monitoring and evaluation doesn't prevent them in work better (M=2.32).

4.6 Response on Personal Factor

Table 1.6 Response on Personal Factor

Factors	N	Mean	Std. Deviation
Understanding of projects help to control the way they do work	59	4.05	.797
Work life balance	59	3.42	.834
Willingness to work on weekend days	59	2.67	1.12
Control the way they do work	59	3.6	.590
Virtual team work	59	2.84	1.013
Flexible working time	59	3.94	.797
Can apply their core strengths	59	4.06	.868
Personality of each member	59	3.67	1.08
Personal issues	59	3.7	.914
Recruitment	59	3.72	.961
Solving of personal problems	59	3.77	.929

Personal factors personality and personal issues plays a major role in the success of a project. Majority of them says that understanding of the projects helps the employees to be competent (M=4.05) and can apply their core strength in their assigned work (M=4.06). Most of them prefer or would like to have flexible working time system (M=3.94) where they could

balance their life and work which most of them are finding difficult to adjust with (M=3.42) majority supports the opinion that personal issues do affect the functioning of the project (M=3.7) and solving the same improve the project functioning (M=3.77). Personality of each member varies and it affects the functioning of the project (M=3.67). Recruitment of most of the team member is purely based on the experience and educational qualification (M=3.72). since most of the team members belong to the millennial group, they would like to control the way they do their job (M=3.6). Majority of the members are not willing to work on weekends (M=2.67) and they don't prefer to work on virtual team (M=2.84) since some may not be able to grasp the project functions which they need to do, which may adversely affect the functioning of the project.

4.7 Correlation Analysis

Table 1.7 Correlation Analysis

Independent variable	Communication	Feedback	Resource Levelling	Monitoring and Evaluation	Personal Factors
Dependent variable					
Project Success	.349	.267	.406	.814	.510

To test the hypothesis, a Pearson correlation analysis was conducted for the independent variables (communication, feedback, resource levelling, monitoring and evaluation, personal factors) and the dependent variable, project success. The correlation coefficients showing relationship between each pair of variables have been found out and are presented in the table.

5. Findings

Even though the success factor varies from person to person, quality of the product and the client satisfaction is found to be most important factor. Satisfying the team member's interest and challenges, ability to meet the cost objectives were found to have no impact on the project success. Most of the respondents opined that face to face communication have a major role in project success (M=4.38). Communication, feedback and resource levelling is weakly correlated to the independent variable - project success. Personal factor, Monitoring and evaluation are positively correlated to project success and correlation coefficient is .814 and .510 respectively which is significant at .01 level. Employees are satisfied with face to face communication where they get enough satisfaction and also, they get the idea of what they are supposed to do. Individual feedback is preferred since it can be utilized for appraisal of the employee and also it is found to be a motivation for the employees. Feedback do improve the performance of the employees and so the output. Complaints arises when two employees having same responsibility and duties are given different rating based on their performance and managers find it quite difficult to make them understand the real situation. Resource levelling is very helpful for the completion of projects and it is not getting much delayed due to the bench system where highly qualified technicians are available at any point of time for solving the issues in the project without much complications. Personality and personal factors adversely affect the project functioning and its success. Employees find it difficult to maintain the work life balance at some point of time. Most of the employees are

allowed to implement their own ideas to the project and so they have a feel that they are being valued by the company. Most of the employees enjoy freedom in their job.

6. Conclusion

This study concentrated on the factors contributing to the project success and the role played by project manager in the same. Factors considered were communication, feedback, monitoring and evaluation, resource levelling and personal factors. The study shows some correlation between the dependent and independent variables; however, the correlations were not at all contributing much to the project's technical success. The study also focussed on the role of HR department and it was found that it is having a facilitating role in this arena. The employees in the IT field are more stressed due to the deadlines that they are supposed to meet day by day. They are supposed to work with their brain, so they need much rest, for the project functions to be done in a better manner. There may be many problems affected by them which may adversely affect the project functioning. So, they should be given proper support and guidance by the company like counselling, mentoring, recreation facilities, compensatory leave for those who work over time and all.

7. References

- Amir Hossein Fazel Bakhsheshi, S. R. (2011). Impact of Project Managers' Personalities on Project Success in Four Types of Project . *IPEDR* , 181-186.
- Arto, K. & Kujala, J. (2008) Project Business as a Research Field, *International Journal of Managing Projects in Business*, 1(4), 469-497
- Bakhsheshi, Nejad, (2011). Impact of Project Managers' Personalities on Project Success in four types of Project. *2nd International Conference on Construction and Project Management*, IPEDR Vol.15, IACSIT Press, Singapore
- Belout, A. (1998). Effects of human resource management on project effectiveness and success: toward a new conceptual framework. *International Journal of Project Management*, 16, 21-26.
- Besner, C. & Hobbs, B. (2008). Project Management Practice, Generic or Contextual: A Reality Check. *Project Management Journal*, 39(1), 16-33.
- Chan, A, (2001). Framework For Measuring Success of Construction Projects
- Chin, C. (2012). Development of a Project Management Methodology for Use in a University-Industry Collaborative Research Environment
- Driv, D. (2005). Transferring Projects to Their Final Users: The Effect of Planning and Preparations for Commissioning on Projects Success. *International Journal of Projects Management* 23, 257-265
- Fmcemy, S. Rahman, H. & Harun, Z. (2011). Future Criteria for Success of Building Projects in Malaysia. *International Journal of Project Management*, 29(3), 337-348.
- Jørgensen, C. B. (2015). Human resource allocation practices in multi-project organizations. University of Agder.
- Muller, Jugdev (2012). Critical Success Factors In Projects Pinto, Slevin, And Prescott – The Elucidation Of Project Success. *International Journal Of Managing Projects In Business*
- Prabhakar, G. (2008). What Is Project Success: A Literature Review. *International Journal of Business And Management*, 3 (9), 1-10.
- Steyn, H. & Jordan, J. (2012). Project Management Maturity And Project Management Success In The Engineering And Construction Industries In Southern Africa . *South Africa Journal Industrial Engineering* 23(3), 1-12.)

THE ROLE OF NGOs IN PROTECTING ENVIRONMENT FOR THE SOCIETY: IN THE INDIAN CONTEXT

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ABSTRACT

Humanity has always been driven mostly by service. The Non-Governmental Organizations were created to give this real significance. They have always strived to preserve a sustainable environment in addition to serving society. They support inclusive growth, a goal India has been working toward for the past few years, as well as upliftment of society's poorer groups. Despite having few resources, these groups were able to make the most of them and provide services to the public, putting themselves in a position to go along the road of sustainable development. The NGOs have done a great job in broadening their focus to include areas like human rights, education, and environment. For the underprivileged segments of society, they have created a safe and sustainable environment in this way. A place where individuals may live, grow, learn, and develop themselves has been developed by NGOs. The goal of sustainable development is to close the gap between ecological services and quality of life, and NGOs have done this extremely well since they work in harmony with nature and nurture humans in the same environment. Today, NGOs are working to establish a sustainable society by addressing environmental concerns, encouraging eco-friendly behaviours, and adopting the same philosophies. This paper mainly focuses upon how NGOs help in protecting our environment for the society. This article also aims at different NGOs which works on protecting the environment for the sustainability of our society.

Keywords: *Social service, Sustainability, NGOs in India, Environmental protection*

1. INTRODUCTION

A non-government organisation (NGO) is a company that often forms without the involvement of the government. They can also include clubs and groups that offer services to its members and other people. Typically, they are non-profit organisations, and many of them are involved in humanitarianism or the social sciences. According to surveys, NGOs enjoy a high level of public trust, making them an effective stand-in for societal and stakeholder issues. However, certain NGOs, like the World Economic Forum, can act as corporate lobbying organisations. "Ten years ago, there was little talk of civil society in the corridors of power, but now the walls reverberate with at least the rhetoric of partnership, participation, and the role of citizens' groups in promoting sustainable development." (Global Citizen Action, edited by Michael Edwards and John Gavendta, Lynne Rienner publications, Inc, 2001).

Sustainable growth is necessary for emerging nations like India, and it should not be region-specific but rather all-encompassing. The government often concentrates on the political and economic development while paying little attention to the other sectors. However, in order to achieve inclusive growth, all urban and rural sectors must be served. Being a developing country, the country is subject to a number of limitations, including limited resources, inefficient resource use, poor governance, and the neglect of the underprivileged. As a result, only a small portion of the country experiences economic progress, while other sectors stagnate. Therefore, a sustainable strategy that not only addresses the current but also ensures the future is required for this goal. The social and environmental sectors are frequently

ignored, despite the fact that they are vitally important to growth. Non-profit organisations were thus created in order to care for the underprivileged or overlooked segments of society. These organisations, which are mostly focused on the concept of inclusive growth, are establishing a sustainable environment for the people with the only intention of helping humanity without any financial gain. These efforts of organisations can decrease the gap between the demands of customers and the services that are provided. With their narrow perspectives, these organisations not only improve the present but also pave the path for a better future, adhering to the principles of sustainable development.

2. STATEMENT OF THE PROBLEM

The main goal of the NGOs is development of a sustainable environment which is essential for the betterment of our environment and society. The capacity of these NGOs to gather resources, make the most use of them, and apply sound planning and execution strategies in order to achieve their stated objectives will be crucial to their success. So, in light of the importance of the aforementioned issue, an effort was made to comprehend the role played by NGOs in creating a sustainable environment for society.

3. OBJECTIVES OF THE STUDY

- a) To examine how NGOs contribute to sustainable development.
- b) To describe the suggested models for NGOs operating to create a sustainable environment for society.
- c) To examine the role played by NGOs in creating a sustainable environment.
- d) To know the functions of NGOs in maintaining sustainable development.

4. RESEARCH METHODOLOGY

The secondary data provide the main foundation of this study. The information pertinent to the subject is gathered from a variety of databases, websites, papers published in journals, publications, and newspaper articles, as well as other sources that are readily available.

5. HISTORY OF NGOS

Primary motivation of humanity is service, and in order to realise this, a new set of organisations was created with the sole purpose of promoting social welfare. These organisations began to serve the most vulnerable groups in society as if they were their own children. Non-governmental organisations (NGOs) are corporations with legal status that were founded by natural or legal persons and carry out their operations without the assistance of the state. The United Nations is where the phrase first appeared, and it is typically used to describe non-profit organisations that are not affiliated with any one branch of government. Even if an NGO receives full or partial funding from the government, it does not have any government officials on its board of directors, maintaining its non-governmental character. These organisations primarily serve social purposes and work to improve society.

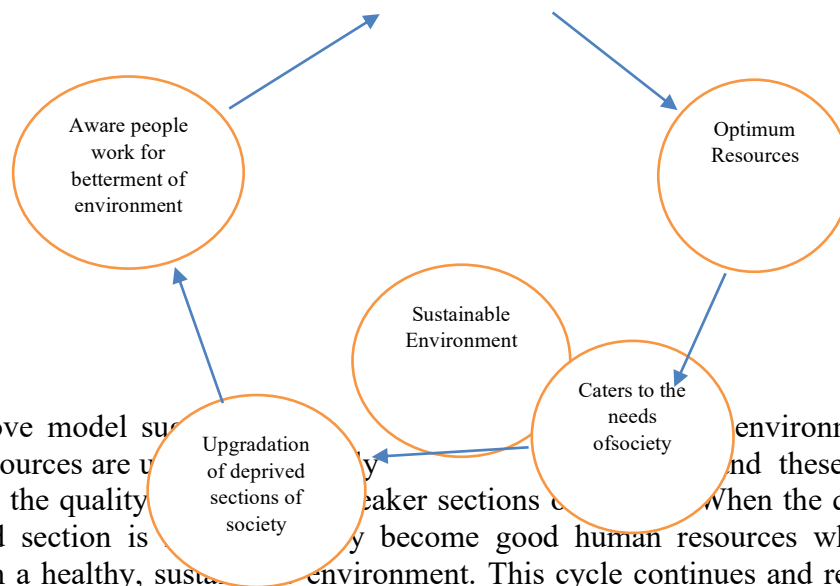
Approximately 1.5 million NGOs are operating in the US. As of 2017, Russia counted approximately 2,24,500 registered NGOs, including more than 1,40,000 “socially oriented” ones, but these represent only 1.1% of the national workforce- proportionally about ten times less than in the US. The Central Statistical Institute of India announced in 2009 that there were 3.3 million NGOs registered in India, or one NGO for every 400 Indian citizens. In 2020, GuideStar India (GSI) had more than 10,000 verified NGOs and more than 1,600 certified NGOs on its portal. There are also 1,43,946 NGOs registered on the ‘NGO Darpan’ Portal of NitiAayog.

6. SUSTAINABLE DEVELOPMENT AND HOW CAN IT BE ACHIEVED

Combining the terms sustainable and development—which both imply to maintain or promote growth, expansion, or progress—we may define sustainable development as a growth or development process that is steady and sustained throughout the course of a longer period of time. In other words, “Sustainable development is development that meets the

needs of the present without compromising the ability of future generations to meet their own needs.”

The primary issue in creating a sustainable environment for society is the lack of resources for the most vulnerable groups, and the lack of resources is caused by faulty planning, use, and environmental balance. It is a cyclical process, thus in order for it to run smoothly, a sustainable environment must be developed. This is one of the key objectives of the NGOs, and they are thriving to do this only by sustainable methods. The figure below illustrates the cycle.



The above model suggests that a sustainable environment can be created when resources are used optimally and these resources help to improve the quality of life of the weaker sections of society. When the quality of life of the deprived section is improved, they become good human resources who in turn work to maintain a healthy, sustainable environment. This cycle continues and results in sustainable development as a whole. Some of the significant problems include air and water pollution, deforestation, the greenhouse effect, global warming, and the rapid depletion of natural resources. As a result, NGOs are working on environmental sustainability and have already begun taking some quick efforts to reduce and reverse the environment's destruction. Environmental sustainability is the long-term preservation or enhancement of the environment's quality for society.

7. ROLE OF NGOs IN MAINTAINING SUSTAINABLE DEVELOPMENT

NGOs frequently play the roles of partner, catalyst, and implementer.

- **IMPLEMENTER:** The NGOs assist in mobilising resources to deliver goods and services as effectively as feasible. They contribute to society by their initiatives in the fields of health care, environmental advocacy, organising various drives, etc. They do their business and successfully complete all of their tasks.
- **CATALYST:** Similar to how a catalyst boosts an operation's effectiveness, NGOs motivate and enhance the people's talents, lifestyle, and social conditions, hence promoting development. As a consequence, the society is empowered, its potential is built, and a sustainable social environment is created.
- **PARTNER:** NGOs now collaborate with businesses and the commercial sector. There is a developing connection between the two because of the alliance, from which both parties stand to gain. While the NGOs receive the money or other help, the business takes care of it as part of Corporate Social Responsibility. It is evident that many business entities help NGOs in their selfless endeavours. Large FMCG companies like P&G and ITC's Classmate have started giving Re 1 each by donating part of the merchandise to non-governmental organisations. Similar to this, businesses like

WIPRO, P&G, and ITC have shown their support for these non-profits by making kind gifts. This demonstrates how NGOs are expanding their reach as even corporations are showing indulgence.

8. FUNCTIONS OF NGOs AND SUSTAINABLE DEVELOPMENT

In this part, the discussions are specifically on functions related to inclusive & balanced growth of society, capacity building and building self-reliant society.

Ultimately, only when society is empowered can sustainable development be realised. Finger (1994) asserts that the bottom-up strategy stresses grassroots activism, community involvement, and local decision-making. It makes the case that grassroots efforts and community involvement encourage local independence and participatory decision-making (Panda 2007). This strategy for social development is anticipated to empower society and the environment, leading to the long-term sustainable growth of society as a whole. People are having the skill and aptitude to manage and optimise oneself in order to handle their own difficulties.

➤ Inclusive and Balanced Growth and Sustainable Development

Inclusive growth refers to both the rate and pattern of growth, which are seen to be interconnected and hence require simultaneous attention. According to the results of the Growth Report: Strategies for Sustained Growth and Inclusive Development, both the pace and pattern of growth are essential for establishing a high, sustained growth record and reducing poverty (Commission on Growth and Development, 2008). The commission observes that the idea of inclusivity, which includes fairness and equality of opportunity, is crucial to a successful growth plan. Making the greatest use of all resources—young and old, men and women—is another aspect of inclusive growth. To maximise opportunity and diversity, the labour market, education, and training programmes must all collaborate.

A certain kind of long-term sustainable economic growth is referred to as balanced growth. The same idea of inclusive and balanced growth is utilised by NGOs. In order to preserve balanced growth, NGOs that care about the environment always put an emphasis on the combination of renewable resources and non-renewable growth. In a nation like India, NGOs are the ideal vehicle to introduce the idea of inclusive growth. Since ensuring the comprehensive and inclusive development of society is the primary responsibility of NGOs. Each NGO has a unique concentration on one or more distinct but related topics, yet they all carry out their obligations to uphold environmental sustainability. It implies that it constantly takes care of every region and every single unit of the society.

➤ Capacity Building and Sustainable Development

One strategy used by NGOs to advance social development that is sustainable is capacity building. The United Nations Development Programme (UNDP) came to comprehend the development or building of societal capacity. The United Nations Development Programme (UNDP) describes capacity building as a "long-term continuous process of development that encompasses all stakeholders; including ministries, local authorities, non-governmental organisations, professionals, community members, academics, and more." Building capacity makes use of a nation's human resources, scientific, technological, organisational, and resource skills. Building capacity tries to address issues using policies and procedures intended for development while considering the potential, constraints, and requirements of the people in the target nation. The three levels that UNDP uses to frame capacity building are the individual, institutional, and social levels.

- **Individual Level:** On a personal level, society capacity-building entails creating the circumstances that enable members to advance their current knowledge and abilities.
- **Institutional Level:** Serving existing institutions in developing nations is essentially what society capacity building on an institutional level entail. Instead of building new

institutions, it is preferable to renovate existing ones and assist them in developing comprehensive policies, organisational structures, and efficient management and revenue control techniques.

- **Societal Level:**The development of a more "interactive public administration that learns equally from its actions and from input it gets from the populace at large" should be aided by society capacity building on a societal level. Developing responsive and accountable public managers requires the application of society capacity building.

➤ **Building Self-reliant Sustainable Society and Sustainable Development**

Another important task performed by NGOs that has an impact on society's sustainable development is the development of self-reliance. Self-reliance is crucial for the sustainable society's improved growth. Self-reliance is purposefully positioned as a key component of social development. It is connected to a number of ideas, including self-help, development of rural areas, and reciprocal assistance. The need for individuals to employ their own resources, local efforts, and skills to better their situation grows as a result. Self-reliance is the state of being free from relying on outside sources of funding and dependent only on one's own resources. The judicious use of all available natural, human, and technical resources is a necessity of the self-reliant strategy. Therefore, in order to attain self-reliance, NGOs and social organisations must assess each member's potential and identify alternative effective ways to realise that potential. Korten (1990) asserts that the approach of the NGOs focuses on enhancing the people's abilities to better address their own needs through independent local action. Korten (1990) stated that the local inertia is the root of the issue in a village or community while discussing the second-generation method. The inertia of tradition, isolation, and lack of knowledge lead a community's latent energy to remain dormant. However, this inertia may be overcome with the support of an external change agent (NGOs and other agents) who assists the community in realising its potential via awareness, organising, and education and introduction to new simple technologies.

9. CONCLUSION

The NGOs were seen as a potentially viable organisation that was actively trying to improve society as a whole. In addition to social, economic, educational, health care, and human rights considerations. These also emphasised environmental concerns. They conduct their business in a manner that ensures the environment's delicate balance is not disturbed and that resources are used wisely for societal good. According to the suggested models, these organisations strive for sustainable growth by working in harmony with social and environmental challenges. These groups' ongoing work have made it possible to consider concerns like carbon emissions, forest degradation, global warming, excessive pollution, water scarcity, and many more.

Since the NGOs' actions serve the dual purposes of safeguarding the environment and assisting people in leading better lives in a safe and healthy environment, the examples cited in the article clearly demonstrate how well the NGOs are doing in establishing a sustainable environment. They are establishing an environment that can support itself and has the resources to meet the society's expanding requirements both now and in the future. In order to achieve inclusive growth by creating a sustainable environment for the society, they are therefore moving forward on the road of sustainability or sustainable development.

10. REFERENCE

1. Agarwal A (2008), The role of NGOs in the protection of environment, *Journal of Environmental Research and Development*, 933-938.
2. David Lewis and Nazneen Kanji, *Non-Governmental Organizations and Development*, 2009, by Routledge, 2 Park Square, Milton Park, Abingdon, Oxon,

OX14 4RN, Routledge is an imprint of the Taylor & Francis Group, an information company.

3. Dildeep Sandhu and Pooja Arora, ROLE AND IMPACT OF ENVIRONMENTAL NGO'S ON ENVIRONMENTAL SUSTAINABILITY IN INDIA, GIAN JYOTI E-JOURNAL, Volume 1, Issue 3 (Apr – Jun 2012) ISSN 2250-348X.
4. "First official estimate: An NGO for every 400 people in India". The Indian Express. July 7, 2010.
5. Hedayat Allah Nikkhal* and Ma'rof BinRedzuan (2010), The Role of NGOs in Promoting Empowerment for Sustainable Community Development, Department of Social and Development Sciences, Faculty of Human Ecology, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia.
6. Ng, Young & Choi, Cindy (2022). NGO's role in the establishment of geopark and promotion of geo-conservation: The Hong Kong example.
7. Reddy, Mahender (2014), ROLE OF NGOS IN SUSTAINABLE DEVELOPMENT AND NATURE CONSERVATION: A CASE STUDY ON SOCIETY TO SAVE ROCKS, HYDERABAD, INDIA.

A STUDY ON STRESS MANAGEMENT STRATEGIES IN MODERN BUSINESS

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Abstract

Everyone experiences stress at some stage in their life. It is a way for us to know that something in our life is causing us concern and is affecting how we are thinking and feeling. Stress is not always bad. In small doses, it can help you perform under pressure and motivate you to do your best, but when you are constantly running in emergency mode, your mind and body pay the price. Stress management is defined as the tools, strategies, or techniques that reduce stress and reduce the negative impacts stress has on your mental or physical well-being. A variety of techniques can be used to manage stress. These include mental, emotional, and behavioral strategies. When stress management is used regularly and in response to stressful life events, we can optimize our well-being. Stress in the workplace is considered to be caused by various things. For example, people are often expected to work extra hard to get positive results. At the same time, their superiors also expect them to be available 24/7 because communication is always available through the internet nowadays. In this study highlight about causes of stress, stress management strategies and importance.

Keywords: Stress, Causes, Management, Strategies, Importance, Motivation, Health

Introduction:

Everyone experiences stress at some stage in their life. It is a way for us to know that something in our life is causing us concern and is affecting how we are thinking and feeling. Stress is not always bad. In small doses, it can help you perform under pressure and motivate you to do your best, but when you are constantly running in emergency mode, your mind and body pay the price. Stress management is defined as the tools, strategies, or techniques that reduce stress and reduce the negative impacts stress has on your mental or physical well-being. A variety of techniques can be used to manage stress. These include mental, emotional, and behavioral strategies. When stress management is used regularly and in response to stressful life events, we can optimize our well-being.

Employees stress is a growing concern for organizations today. Stress can be defined as a lively circumstance in which people face constraints, opportunities, or loss of something they desire and for which the consequence is both unpredictable as well as crucial. Stress is the response of people to the unreasonable/excessive pressure or demands placed on them. Stress is not always negative. It may also bring out the best in individuals at times. It may induce an individual to discover innovative and smarter way of doing things. This positive dimension of stress is called as eustress. But usually, the term stress has a negative implication and this negative aspect of stress is termed as distress. For instance - When a subordinate is harassed or warned by his superior, unhappiness of unsuitable job, etc. We can say that "Stress causes some people to break, and other to break records."

Some of the symptoms of stress at workplace are as follows-

- Absenteeism, escaping from work responsibilities, arriving late, leaving early, etc.
- Deterioration in work performance, more of error prone work, memory loss, etc.
- Cribbing, over-reacting, arguing, getting irritated, anxiety, etc.

- Deteriorating health, more of accidents, etc.
- Improper eating habits (over-eating or under-eating), excessive smoking and drinking, sleeplessness, etc.

It is thus very essential to have effective stress management strategies in an organization so that the detrimental repercussions of stress on the employees as well as their performance can be reduced and controlled.

Causes of Stress in Business

The factors leading to stress among individual are called as stressors. Some of the factors/stressors acting on employees are-

1. **Organizational factors-** With the growth in organizational stress and complexity, there is increase in organizational factors also which cause stress among employees. Some of such factors are-
 - a. Discrimination in pay/salary structure
 - b. Strict rules and regulations
 - c. Ineffective communication
 - d. Peer pressure
 - e. Goals conflicts/goals ambiguity
 - f. More of centralized and formal organization structure
 - g. Less promotional opportunities
 - h. Lack of employees participation in decision-making
 - i. Excessive control over the employees by the managers
2. **Individual factors-** There are various expectations which the family members, peer, superior and subordinates have from the employee. Failure to understand such expectations or to convey such expectations lead to role ambiguity/role conflict which in turn causes employee stress. Other individual factors causing stress among employees are inherent personality traits such as being impatient, aggressive, rigid, feeling time pressure always, etc. Similarly, the family issues, personal financial problems, sudden career changes all lead to stress.
3. **Job concerning factors-** Certain factors related to job which cause stress among employees are as follows-
 - a. Monotonous nature of job
 - b. Unsafe and unhealthy working conditions
 - c. Lack of confidentiality
 - d. Crowding
4. **Extra-organizational factors-** There are certain issues outside the organization which lead to stress among employees. In today's modern and technology savvy world, stress has increased. Inflation, technological change, social responsibilities and rapid social changes are other extra-organizational factors causing stress.

Stress Management Strategies in Business

Here are 10 stress management strategies for entrepreneurs recommended by experts.

1. Pay attention to your body's stress signals:

Typical signals of stress include sweating and an increased heart rate. It's important to recognize these signals and get them under control. This could involve simple, deep-breathing exercises.

2. Deal with the stress head on

Rather than procrastinate, think about what is causing the emotional reaction and get a handle on it. Deal with the cause of stress right away, whether it's a phone call from an angry client or making a difficult business decision.

3. Take systematic breaks

When you feel stress coming on, get up and do something else such as taking a brief walk or going outside. This short break can give you a different perspective on a stressful situation and at least provide short-term relief from the physical effects of stress.

4. Adopt a healthy lifestyle

Getting 30 minutes of rigorous exercise at least three times a week can help you reduce stress. Good eating habits such as including more fruits and vegetables in your diet can give you more energy and help you handle stress better.

5. Try to achieve work/life balance

Although today's business environment can be demanding, it's crucial to take time for other activities outside of the office such as family events, hobbies and sports. This is when you recharge your batteries.

6. Keep perfectionism in check

Offering a quality product and service doesn't mean obsessing about it. Know when to get a task off your desk and focus on doing your best in a competitive environment.

7. Delegate to reduce your workload

Accept that you can't do it all. Rather than micro-managing, pay special attention to [delegating responsibility to employees](#) and leaving them alone to do the job. Sharing the load can relieve stress.

8. Find people you trust and confide in them

Talking to others about business issues can help you find solutions to deal with challenges. and expenses. Also, find ways to improve productivity and ultimately your company's financial health. Entrepreneurs can also [network with other people](#) in their industries to see how they are handling similar issues.

9. Get your business's financial situation under control

Cash flow is a major source of anxiety for entrepreneurs. Find ways to better monitor your revenues

10. Commit to vacation time

Give yourself time off to relax, particularly during challenging periods. For example, turn your phone off when you're on a holiday. Postponing a vacation may have short-term benefits for your business but in the long run, your health could suffer and cause greater problems down the road.

Importance of Stress Management

Here is why stress management is important at the workplace.

1. Increased Productivity

[Stress management in the workplace](#) is crucial because it can lead to more productivity. First of all, when employees feel stressed out for whatever reason, they will probably be less productive because their mind is not focused on the task at hand. They may get distracted easily or make simple mistakes such as forgetting bad things involving something like an important document. Furthermore, researchers have found out that those who feel stressed can't focus on their tasks. They've also discovered that those under pressure tend to forget things easily and take more time to complete a task. If you want your employees to be productive, it is best for them to learn stress management in the workplace and to be able to avoid unnecessary stress whenever possible.

2. Increased Work Engagement

When your employees are stressed out, they won't be as engaged with their work. Stress management helps increase employee engagement by allowing them to be more productive and focused. They will also not carry around the burden of stress, leading to other problems like burnout or depression. Employee engagement is critical because employees

may feel unmotivated to work hard, especially if they are stressed out about something that can make them less productive. Unmotivated employees may not do a good job, leading to erroneous results, and others will think you have a poor company culture.

3. Better Decision-making Skills

Stress management also teaches your employees to make better decisions without being pressured by stress. Although not everyone who undergoes stress management training will have better decision-making skills, it is still best to prioritize their tasks correctly. They also need to understand whether they are actually adding value or just simply wasting time when feeling stressed out about the problems in your workplace. On top of that, stress can impair your judgment, so you may not decide on which solutions are best for a particular problem. You can't just settle for the first solution that comes into your mind because usually, you will end up making bad decisions if you don't know how to handle stress properly.

4. Lower Employee Turnover Rates

Turnover rates can be lowered when employees learn how to manage their stress. Employee turnover rates are very high nowadays because employees tend to switch jobs if they feel dissatisfied with various aspects of working in a particular company. They may not even care about the consequences of their actions, including any legal implications that can arise from this move. If you want to retain your employees, they should learn stress management because it will help relieve them of their stress at work. Employees will be happier and more productive with less stress, leading to lower turnover rates.

5. Leads to Greater Job Satisfaction

Job satisfaction can also be achieved when employees learn stress management. If you make your employees happy and free from the burden of stress, they will probably feel more satisfied with their jobs and stay longer in your company. You should always make sure that there are no sources of stress in the workplace, so people will not suffer from mental health issues due to stress.

6. Improved Employee Health

Stress management programs in the workplace also help improve employees' overall health. Employees who are stressed out usually suffer from illnesses like heart problems and even depression because stress can lead to unhealthy habits such as smoking and drinking alcohol. This is why your company should implement stress management in the workplace to solve many employee problems at once. Stress also increases the risk of your employees acquiring diseases related to stress.

7. Strong Company Culture

A company culture based on stress management can have many benefits for your business. Your employees will be healthier, more productive, and happier, making the workplace a very positive place. This way, you won't need to worry about employee morale dropping because everyone will feel like they are part of something great compared to other companies with poor cultures because there is no stress management.

8. Better Team Communications and Moral

Stress management helps you and your employees communicate better by assisting employees in understanding each other more. The workplace can be a stressful place to be in because you get stressed out from work or may even get overwhelmed with the problems that need to be solved. This is why every team member needs to get along with each other. Having less stress will make it easier for you and your employees to communicate.

9. Helps in Planning for the Future

Stress management also helps managers plan better for the future. It makes sense that when people are stressed out, it is more difficult to focus on their tasks which makes planning

a hassle because they have to do everything at once instead of focusing on one study at a time. Implementing stress management in the workplace will solve this dilemma because employees can focus better and plan for greater results, thus staying productive even if they are stressed out.

10. Improved Customer Satisfaction:

The most crucial reason why stress management is beneficial for businesses is that it helps improve customer satisfaction. When your customers are pleased with their experience in your company, they will come back because you've provided excellent service to them. When customers are happy, they usually tell their friends that the superb experience will attract more people to your business. This also results in more business and profits for your company, so it's worth going through the effort of learning stress management.

Conclusion

Stress does not only affect us on an individual level, but it also impacts on our relations with family, friends, and our colleges at the work place. It also affects different facets of society like socialization, and even the economy, with regards to how stress impacts productivity. Work-life balance is about creating and maintaining supportive and healthy work environments, which will enable employees to have balance between work and personal responsibilities and thus strengthen employee loyalty and productivity. And also stress management was shown to be capable of reducing the risk of heart attack by up to 75% in people with heart disease; stress management techniques, along with methods for coping with anger, contributed to a reduction of high blood pressure, and; for chronic tension headache sufferers.

References

- Bouchez, C. (2018). Stress and Infertility. *WebMD*. Retrieved from <https://www.webmd.com/infertility-and-reproduction/features/infertility-stress#1>,
- Check Out the Stress Tip Sheet. (2018). <http://www.apa.org>. Retrieved from <http://www.apa.org/news/press/releases/2007/10/stress-tips.aspx>
- McEwen, B. (2003). *The End of Stress as We Know It*. Washington, D.C.: Joseph Henry Press.
- Palmer, S. (1989). Occupational Stress. *The Health and Safety Practitioner*, 7, (8), 16-18.
- Van der Kolk, B. et. al. (2007). *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body, and Society*. New York, NY: The Guilford Press.
- Van Duyne, S. (2003). *Stress and Anxiety-Related Disorders*. Berkeley Heights, NJ: Enslow Publishers.
- Wallenstein, G. (2003) *Mind, Stress, and Emotion: The New Science of Mood*. Boston, MA: Commonwealth Press.
- Warner, J. (2002) "Stress Makes Teen Acne Worse." *WebMD*. Retrieved from
- Workplace Stress. (2018). *The American Institute of Stress*. Retrieved from <https://www.stress.org/workplace-stress/>

ACQUIRING TALENT THROUGH AI-BASED DECISION SUPPORT SYSTEM (DSS)

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Abstract

This Study is aimed to investigate the, *Human resource managers are using artificial intelligence (AI) to perform a variety of activities in human resource management, from manpower planning to employee termination. In companies, AI technology is widely employed for talent acquisition. Through computational modeling and mechanical treatments, artificial intelligence plays a vital part in the decision-making process. It saves us time and allows us to make the best decision possible when we are faced with a dilemma. In HRM, artificial intelligence helps managers maximize the potential of human resources. It aids in the selection, recruiting, and management of human resources at all levels. In the modern era of the knowledge economy, technology and the processes that generate and manage it are seen as the most valuable assets Of an Organization in a Competitiveeconomic environment, and smart procedures of the Human Resources decision support system (HRDSS)*

Keywords:Artificial intelligence , HRM , Decision support system

Introduction

Artificial intelligence is at the core of good decision-making aids. A choice assist device assists a crew or business enterprise in making records-pushed selections. AI takes it a step similarly with the aid of automating business choice-making, frequently referred to as an expert machine. Byprojecting outcomes based on huge amounts of data, the DSS will take firms' data sets and streamlinethe decision-making process

Human resources are an important asset for any business, and they are managed by HR specialists. Decision-makers today have an absolute obligation to make the most correct decision in the shortest amount of time feasible, thanks to the rapid growth of information technology applications. Staffing, training, incentive, and maintenance are just a few of the unstructured activities involved in HRM (DeCenZo & Robbins, 2005). Advanced intelligent strategies are accessible in creating an intelligent system application as an improvement to the classic DSS methodology. IDSS refers to DSS solutions that include intelligent components that can enhance typical DSS capabilities like reasoning and learning. High-quality HRM software is necessary to improve human resource choices. As a result of those considerations, the IDSS method should be used in human aid choice-making sports by incorporating a number of the already available smart techniques. whilst cognitive abilities and behaviors are combined with a pc system, a clever machine is created

By way of AI, we can build spreadsheets or instruments that can resolve certain-experience questions very surely and accompanying veracity in the way that well-being issues, shopping, traffic issues, etc.

- ✓ By way of AI, we can constitute your private in essence helpers, to a degree Cortana, Google Helper, etc.
- ✓ By way of AI, we can build Machines that can introduce an atmosphere that place the endurance of persons who maybe in danger.
- ✓ AI opens a course for different new electronics, new tools, and New Convenience.

AI is an individual of the interesting and entire fields of Information technology that has an excellent outlook from now on. AI holds a leaning to cause a tool to work as a human.

Machine intelligence survives when a gadget can have human-located abilities to a degree knowledge, interpretation, and answering questions.

Accompanying Machine intelligence, you do not need to preprogram an apparatus commotion few works, regardless of that you can generate a vehicle accompanying register algorithms that can befriend your intellect, what is the awesomeness of AI.

It is trusted that AI is not new electronics, and few families mention that as per Not understandable superstition, skilled were Machinelike guys in the early days the one can work and properly like persons.

REVIEW OF LITERATURE

Haidah Jantan (2010) machine gaining knowledge enables structures to conform their conduct and react to changes in their environment. The choice of fixing semi-structured and unstructured issues using records and models (Qian et al, 2004) This bankruptcy covers established DSS demanding situations as well as a proposal to apply DSS technology to the problem of Human sources management (HRM). lately, the combination of DSS technology and synthetic intelligent strategies has resulted in the development of a brand-new sort of DSS technology called energetic DSS, so one can be used in the new millennium. Gloria Phillips-Wren (2006) synthetic intelligence strategies are an increasing number of widening and enriching choice guides with the aid of coordinating facts transport, reading data trends, providing forecasts, growing statistics consistency, quantifying uncertainty, awaiting person information desires, providing information in the most appropriate strategies, and recommending publications of motion. Vytautas (2015) The capacity of managers to strike a balance between rational and creative choice-making is important to their strategic and tactical choices. synthetic Intelligence (AI) technologies have become more widely utilized in contemporary groups, attributable to their established competencies to lessen the administrative workload and help managers in making information-pushed selections as opposed to relying on intuition, however, paradigms associated with rational and innovative decision making are rising. Samer Ellahham (2019) detached health care domains, inclusive of bioinformatics, genomics, and photograph analysis, there may be rising expertise that synthetic intelligence (AI) has been employed within the analysis of complex and huge records to supply outputs without human enter. even though this technology can enhance diagnosis and treatment methods, it can also provide obstacles and risks because of a diffusion of protection concerns. Steven Walczak's (2016) AI packages may be used to assist corporations with an expansion of managerial responsibilities, together with HR leadership, useful resource-making plans, customer service, and monetary making plans. synthetic intelligence (AI) is well-known, and synthetic neural networks mainly can offer a wealth of statistics to assist managers to make higher decisions. Richard D (2021) We believe that eHRM and AI can help hospitality corporations rent proficient employees and reduce the time it takes to replace them. We take a look at how e-recruitment may additionally assist agencies to attract and become aware of eligible individuals who will be a part of and stay with them, as well as how e-choice can assist organizations to elevate the extent of shape among candidates and jobs or corporations so that they may live with them. Qiong Jia et al (2018) As a result, this newsletter offers a conceptual AI software to the HRM version to manual groups on how to use AI technology to resource human resource management, based on the six dimensions of human useful resource control and the primary technical applications of AI. With the development of AI technology, a younger crop of manpower, including artificial intelligence's human intelligence, has emerged as a critical aspect for

companies to continue to exist and evolve in changing surroundings. Daekyo Jung (2020) Furthermore, AI has been implemented into DSSs to improve the efficiency of decision-making. DSS is a decision-supporting information system that helps people make better decisions by developing and comparing many options to address problems. DSS is a decision-supporting information system that assists individuals in making better decisions by producing and comparing a variety of problem-solving options. K Thirupathi 2011, DSSs are computer-based information systems that assist managers in choosing one of many alternative solutions to a problem. In a big, computer-based DSS that is smart and can analyze vast amounts of data quickly, it is possible to automate some decision-making processes. DSSs are pc-based records systems that assist managers in choosing one of many alternative answers to trouble. In a huge, pc-primarily based DSS that is smart and can analyze huge quantities of information fast, it's miles possible to automate some choice-making methods. It aids businesses in expanding their market share, lowering costs, increasing profits, and improving quality. In a decision-making process, the nature of the problem plays the most important role.

What is AI Technique?

1. Knowledge has certain unwanted features in the actual world.
 - Its size is enormous, almost immeasurable.
 - It is not well-formatted or arranged.
 - It is continually changing.
2. A Technique is a method of efficiently organizing and using knowledge in such away.
 - It must be observable by those who offer it.
 - It should be simple to change in the event of an error.
 - Even though it is incomplete or erroneous, it should be beneficial in a variety of scenarios.

AI approaches increase the speed with which a complex program is executed.

Talent Acquisition

Talent acquisition is the process of discovering and retaining highly competent employees. The talent acquisition team in a corporation is usually made up of a group of human resources and talent acquisition specialists who are in charge of hiring new employees and improving employee retention, or the percentage of employees that stay with the company over time. Because organizations invest money, time, and effort into hiring and training people, employee retention is crucial. The better the return on investment from a team member who stays with a company for a longer time. Scullion et.al (2010) Synthetic Intelligence The purpose can be to figure out the way to get machines to talk, assemble abstractions and notions, remedy troubles that are presently reserved for humans, and improve themselves. The purpose will be to discern a way to get machines to talk, construct abstractions and notions, resolve issues that might be currently reserved for humans, and enhance themselves. We believe that if a properly selected group of scientists works on one or more of these topics together for a summer, significant progress can be accomplished. the definition is given by Mr. McCarthy

Decision support system

Obtaining data is no longer a problem for most firms, the difficult and time-consuming part is deciding what to do with it. Even the most innovative businesses confront difficulties in making effective business decisions based on thorough data analysis. A decision support system (DSS) can assist in bridging the data analytics and decision-making gap. When

decision-making processes aren't working, a DSS can help organizations explore their data landscape and feel confident in their conclusions.

A data management system (DMS) is used to collect, evaluate, and present data in detailed reports. Artificial intelligence (AI), human decision-makers, or a combination of both can manage the technique of the decision support system. Artificial intelligence decision-making techniques, also known as augmented analytics, are a powerful way for businesses to use data to confidently make smart business decisions.

TYPES OF DECISION SUPPORT SYSTEMS

1. Connectivity:

Allows groups to help with obligations that require multiple human beings to complete. Microsoft SharePoint Workspace and Google medical doctors are a number of the connected technologies

2. version-based

Getting entry to and administration of monetary, organizational, and statistical models is viable. The statistics supplied by using users are used to accumulate statistics and determine parameters. to investigate situations, the statistics are transformed right into a choice-making version. Diodes, an open-source model-driven DSS, is an example of a version-driven DSS.

3. know-how-based

Makes use of recorded information, approaches, regulations, or interactive selection-making frameworks like flowcharts to offer authentic and specialized answers to situations. makes use of recorded statistics, strategies, guidelines, or interactive selection-making frameworks like flowcharts to provide factual and specialized solutions to conditions.

4. File-based totally

Manages unstructured information in a ramification of electronic codecs.

5. Information primarily based

Assists groups in storing and reading internal and external statistics.

DECISION SUPPORT SYSTEMS IN THE FUTURE

Plenty of latest equipment and technologies are improving in DSS/talents and redefining DSS implementations in organizations. hardware and mathematical software trends, statistics warehouse/multidimensional databases (MDDDB), facts mining, online analytical processing (OLAP), employer resource planning (ERP) structures, smart retailers, and telecommunication devices which includes international huge internet technologies, the net databases, and digital networks are among them.

1. From a man or woman angle, examine and realize.
2. In instances in which there may be ambiguity and uncertainty, use abilities and experience to enhance the instances. Reasoning and questioning
3. Understand and infer in a rational, normal manner.
4. React to new conditions rapidly and efficiently.
5. Examine the impact of diverse variables in a condition.

Artificial intelligence (AI) can also be incorporated into decision-making aids. Decision support systems are AI systems that mine and process massive volumes of data to gain insights and offer recommendations for better decision-making. It accomplishes this by evaluating a variety of data sources and discovering patterns, trends, and relationships to mimic human decision-making abilities

An IDSS gathers and analyses information to assist selection-makers with the aid of figuring out and troubleshooting issues, as well as giving and evaluating possible solutions, in the

same way, that a human consultant might. The DSS's AI component tries to mimic human capabilities as nearly as possible while processing and interpreting data more effectively than a computer system.

Decision Making and Problem-Solving Process

Prospective obstacles and/or opportunities are uncovered and defined during the intelligence phase of the decision-making process. Throughout the layout stage, potential solutions to the problem are presented. Throughout the selection degree, a path of action is decided. On the implementation level, steps are being taken to put the solution into action. In the tracking step, the solution's implementation is checked to verify if the desired outcomes were achieved and if the method needs to be changed.

Objectives

- To Study, the existing talent management practices through AI-based Decision support system (DSS) adopted in various studies.
- To study the effectiveness level of Acquiring Talent Through an AI-based Decision support system

Research Methodology

This paper is an, Acquiring Talent Through AI-based Decision support system (DSS) This has a look at is in particular Descriptive. There may be no impartial or dependent variable, it is important to review formerly executed researchers with equal concern. The observation's information becomes derived from secondary sources. secondary records had been amassed from articles, journals, websites, and books. Nearly more than 30 articles were reviewed for this research paper.

FINDINGS

From this article find that, AI and Decision support System has suggested more tasks and convenience for the population in all area. Each motor needs a human to work it. Still, AI has consumed few functions, but it reverts to bearing more tasks for the population. Moreover, Artificial intelligence acts on the task and advances the computer processing of data act. They will be able achievement various tasks complementary to human judgment. Still, the happening of specific AI is certainly, and it will take age or a period to design the aforementioned AI requests. Additionally, the adeptness of specific AI, whether it will be better than persons, is not certain at the current stage.

SUGGESTION

Machine intelligence (AI) and Decision Support systems is a new field of information technology, that is ready to enhance the main component of miscellaneous arising electronics like the great dossier, the study of computers, and IoT. It will touch serve as a mechanics inventor in the coming age. In just any age, AI has come into being from imagination. Machines that help persons accompanying data are not just in literary fantasy about future motion pictures but too in the world of nature AI science in our regular lives either without thinking or intentionally, and it has enhanced our growth. Varying from Alexa/Siri to Chatbots, all is transferring AI into their routine. The growth and progress concerning these electronics are a rare occurrence at a swift pace. Nevertheless, it was not as smooth and smooth as it appeared to us. It has captured various ages and innumerable difficult labor & gifts of miscellaneous society to take AI to this stage. Being so rebellious electronics, AI likewise handles many debates about the alluring future and its effect on Human beings. Possibly hazardous, but likewise an excellent moment. AI will be redistributed to embellish

two together protective and offensive computerized movements. Furthermore, a new method of high-tech attack will perform imposed upon particular exposures to AI science.

CONCLUSION

This chapter covers universal software program concepts, programs, associated HRM studies, ability clever tactics, and a suggested HR synthetic wise selection support gadget framework based totally on system studying. teachers and practitioners can look at an extensive range of topics, hassle domain names, and sophisticated methodologies. This research conclude that Decision support system techniques are created with information in thought and that general software utility improvement is a challenging interest. finally, the Decision support system electricity is its ability to develop and study new things all of the time, so one can be the implementation for the studies plan. This article discusses a diffusion of synthetic intelligence (AI) methodologies and packages for building company information bases and guiding managers at all ranges in making knowledge-based decisions.

References

- ❖ Daekyo Jung et al (2020) Conceptual Framework of an Intelligent Decision Support System for Smart City Disaster Management, Applied Science, volume 10 (2) pp 2-13
- ❖ **Jantan et al (2010) Intelligent Techniques for Decision Support System in Human Resource Management, ISBN 978-953-307-069-8, pp. 342,**
- ❖ Gloria Phillips-Wren (2006) Artificial Intelligence for Decision Making, Springer-Verlag Berlin Heidelberg, ISBN: 978-3-540-46537-9 pp. 531 – 536
- ❖ Vytautas PALIUKAS (2015) HARMONIZATION OF RATIONAL AND CREATIVE DECISIONS IN QUALITY MANAGEMENT USING AI TECHNOLOGIES, Journal of Economics and business, ISSN 2256-0394 (online) ISSN 2256-0386 (print) 2018, 32, 195–208. DOI: 10.2478/Feb-2018-0016.
- ❖ Samer Ellahham et al (2015) Journal: American Journal of Medical Quality, 2020, Volume 35, Number 4, Page 341 DOI: [10.1177/1062860619878515](https://doi.org/10.1177/1062860619878515)
- ❖ Steven Walczak (2016) Artificial Neural Networks and Other AI Applications for Business Management Decision Support, International Journal of Sociotechnology Knowledge development Volume 8, Issue 4 pp 1-20 DOI: 10.4018/IJSKD.2016100101.
- ❖ Richard D (2021) "The benefits of eHRM and AI for talent acquisition", *Journal of Tourism Futures*, Vol. 7 No. 1, pp. 40-52. <https://doi.org/10.1108/JTF-02-2020-0013>
- ❖ Faria Rabbi (2015) talent management as a source of competitive advantage, Asian Economic and Social Society, 5 (9), 208-214, SSN (P): 2309-8295, ISSN (E): 2225-4226 DOI: 10.18488/journal
- ❖ Scullion, H. Collings D .and Caligiuri P. (2010) Global Talent Management Journal (of World Business, 45, 2, 105-114. DOI: 10.1016/j.jwb.2009.09.011 Qiong Jia et al (2018). A conceptual artificial intelligence application framework in human
- ❖ resource management. In Proceedings of The 18th International Conference on Electronic Business (pp. 106- 114). ICEB, Guilin, China,
- ❖ K Thirupathi 2011, Decision Support System Is a Tool for Making Better Decisions in the Organization, Indian Journal of Computer Science and Engineering ISSN: 0976-5166, Vol, 2(1), pp 112-117.

EMPLOYABILITY OF MANAGEMENT STUDENTS IN KERALA: A STUDY WITH REFERENCE TO CAMPUS RECRUITMENT

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ABSTRACT

Kerala is a small state in India having a high literacy rate and human development index mainly because of the quality of education provided to all groups of individuals. Higher education in the state is popular all over the globe, and students from foreign nations are graduating from Kerala. Management education in the state is popular and the number of institutions has been increasing as the students show a positive approach to management education. The employability of management students is a big challenge as there is a massive gap between the industrial expectations and the employability skills of graduates. Preparing the management students industry/ corporate ready is the need of the hour as the opportunities for management graduates are very high globally. The study aims to examine the critical employability skills required for management graduates and the various challenges faced by them at the time of campus recruitment. The data needed for the study is collected by interviewing 20 Training and Placement Officers of management institutes in Kerala with good placement records. The study reveals that communication skills, working with teams, and interpersonal skills are the critical employability skills required for management graduates in getting campus placement. Lack of self-confidence, lack of communication skills, low-profile jobs, and lack of exposure to opportunities were the major challenges faced by management graduates during campus placements, as per the opinion of Training and Placement Officers. Adopting and implementing adult learning principles, encouraging experiential learning, and scheduling co-curricular activities will be of immense importance in developing employable management graduates.

Keywords: Management Education, Employability skills, Generic Skills, Transferable skills, Core Skills.

INTRODUCTION

Management education plays a vital role in developing future managers, entrepreneurs, and leaders to support the overall development of the nation. The scope of management education in India is high as the entire globe is looking at our nation as an investment destination, with the liberal political approach of the Government. Being a professional graduate with a good reputation, the overall transformation of graduates to make them industry/ corporate ready should be the prime focus of management education. Meeting the industrial/ corporate expectations is one of the major challenges in management education, as the graduates are lacking employability skills. Mere classroom learning or imparting theoretical knowledge in the minds of graduates alone will not result in developing and enhancing employability skills. For most management institutes and universities, the curriculum is designed in such a way to get practical exposure to the students, and at an institutional level, several co-curricular activities are organised to sharpen the employability skill sets of students. But in reality, the students develop certain skills expected by the employer only after getting into employment.

STATEMENT OF THE PROBLEM

Kerala State has the highest literacy rate of 94%, but the unemployment rate in Kerala increased from 9% in 2018-19 to 10% in 2019-20 (Census Survey 2011). Wide employment opportunities, the scope for career growth and advancement, and good salary were the primary motives for graduates to prefer management courses. On average, management students spend three to five lakhs on tuition fees for a two-year management program, but only 7% are employable in different sectors (ASSOCHAM 2016). Even after adopting so many interventions and measures to strengthen the employability skills of management students, most of them are lacking certain skills expected by employers, is the research question addressed. A detailed and scientific examination of the critical employability skills required for management students in getting campus placement is of immense importance to address the severe threat of unemployment in our nation.

OBJECTIVES OF STUDY

1. To examine the employability skills required for management graduates in getting campus recruitment.
2. To examine the various challenges faced by management graduates at the time of campus recruitment.

METHODOLOGY

The study aims to explore the employability of management graduates in Kerala. The basic data needed for the study includes both primary and secondary data. Primary data is collected by interviewing Training and Placement officers of management institutes in Kerala with good placement records and data is recorded by circulating a questionnaire in Google form. Secondary data is gathered by reviewing research articles, research thesis, magazines, and websites.

Convenient sampling method is adopted to draw a sample of 20 Training and Placement officers of management institutes in Kerala having good placement records. A five-point scale is extensively used to gather data, and the data collected is analysed with Statistical Package for Social Sciences (SPSS).

EMPLOYABILITY SKILLS

Employability refers to the ability of an individual to get employment and perform a job in an effective manner. The goal of professional education is to mould and equip students employable in that particular profession. In a developing economy like India, the employment opportunities are so high, as the political climate favours industrialisation and welcomes foreign investment. Enabling professional students to fit the specific profession with needed knowledge, skills and talents should be the vision of professional education, to cater to the required human resource for industrial functioning in line with the economic development of our nation.

“India is not facing the problem of unemployment but unemployability” (Dr. APJ Abdul Kalam). Unemployment is a situation where individuals are not in a position to perform a job if a suitable employment opportunity is provided. The employability of management graduates across different functional domains is below 10% (Nawaz & Reddy 2013), as there exists a significant gap between the industry expectations and the employability skills possessed by these graduates. Identifying the expectations of the industry and enabling industry/ corporate ready managers should be the need of the hour, as the requirements of the industry have not been fulfilled so far. Developing employable managers with all required skill sets will strengthen a sustainable education system that favours industry as well as graduates.

Employability skills of management graduates refer to a bunch of skills required for getting employment in the field of management and business administration. The various employability skills required may vary from industry to industry and across functional domains. Identifying, developing, enhancing, and retaining the required skills will support the employability of management graduates. The various employability skills required for management graduates in getting employment can be categorised as generic skills, transferable skills, and core skills.

The skills which are required by graduates to gain employment and to progress within an organisation are termed generic skills. Generic skills refer to a set of skills that is common to and applies to all jobs irrespective of class, domain, category, or industry. Generic skills are basic skills or talents that an employee has to master in order to succeed in this career.

Transferable skills are a set of skills that individuals gain and transfer from one job to another. According to Wisconsin job centers, employers often believe transferable skills are more critical than other job skills when hiring employees. Employers seek out some transferable skills, such as interpersonal skills, working with a team, relationship building, and soon, that every graduate can use for career development. Employers also search for transferable skills in their employees because they have the ability to work beyond their job descriptions.

Core skills refer to the core competencies of graduates required for effective performance and are aligned with the values and strategies of organisations. Johannsen developed five core work skills: leadership, technical, strategy and tactics, management, and self-mastery. Employers are looking for graduates who not only possess certain skills and knowledge but also the ability to foresee and respond to problems. In Kerala, most employers are searching for graduates who are balanced, with good academic records, and have generic and core skills like communication skills, problem-solving skills, interpersonal skills, and time management (ChandraVadhana R, Sreejith Menon,2019).

Table No. 1
Descriptive Statistics - Critical Employability Skills

Employability Skills	N	Mean	Std. Deviation	Rank Order
Generic Skills				
Communication skills	20	4.90	.308	1
Problem solving	20	4.35	.489	8
Decision Making	20	4.50	.688	5
Initiative	20	4.70	.571	3
Capacity to recover quickly from difficulties	20	4.25	.716	9

Generic Skills Total		4.57		1
Transferable Skills				
Rapport with co-workers	20	4.45	.759	6
Teamwork	20	4.90	.308	1
Listening	20	4.65	.489	4
Interpersonal skills	20	4.85	.489	2
Clerical skills	20	3.55	.999	11
Transferable Skills Total		4.48		2
Core Skills				
Leadership	20	4.40	.503	7
Technical skills	20	3.85	.745	
Formulation of strategy	20	3.80	.894	10
Management skills	20	4.70	.470	3
Self-mastery (Self-control)	20	4.35	.875	8
Core Skills Total		4.22		3

Source: Survey data

The various critical employability skills required for management graduates in getting campus recruitment are highlighted in table no.1. The analysis reveals that communication skills and working with a team were the predominant critical employability skills followed by interpersonal skills, management skills and taking initiative. The analysis highlights clerical skills, formulation of strategies, and capability to recover from difficulties were the least preferred employability skills required for management graduates in getting campus placements as per the opinion of placement officers. The study also reveals that generic skills are the critical employability skills followed by transferable skills and core skills required for campus placements.

Table No. 2
Descriptive Statistics – Internal Challenges

Internal Challenges	N	Mean	Rank Order
Challenges in domain knowledge	20	4.15	5
Challenges in communication skills	20	4.35	2
Attitude of the students	20	4.30	3
Lack of self-confidence	20	4.40	1
Lack of preparations for placements	20	4.25	4
Lack of career vision	20	4.30	3

Source: Survey data

The results indicate that lack of self-confidence is the major internal challenge faced by management students in Kerala in getting campus placements followed by poor communication skills, lack of career vision, the attitude of students, lack of placement preparations and poor domain knowledge in order.

Table No. 3
Descriptive Statistics – External Challenges

External Challenges	N	Mean	Rank Order
Indefinite/ unclear job role	20	3.65	3
Low profile jobs	20	3.85	1
Low salary package	20	3.75	2
Lack of exposure to opportunities	20	3.60	4
Low Institutional support	20	3.20	5

Complex placement procedures	20	2.90	6
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Source: Survey data

The analysis reveals the external challenges faced by management graduates in getting campus placements in Kerala. Low profile jobs are the major external challenge as per the opinion of placement officers followed by low salary packages, unclear job roles, lack of exposure to opportunities, low institutional support, and complex placement procedures in order.

SUGGESTIONS

To enhance the employability of management graduates and to address the various challenges faced by them, the following suggestions were made by the researcher:

Developing a sense of career vision in the mind of graduates or making them career-focused will be of immense importance in developing employable management graduates. Making the graduates responsible leaders and managers by inculcating the importance of career should be the fundamental aspect of management education. Changing the traditional method of classroom learning and adopting the principles of adult learning and experiential learning will support management education in developing employable professionals.

Enabling employable students is a planned intervention, requiring proper planning and scheduling of academic, curricular, and co-curricular activities. Last moment intervention will not support the development of employable graduates. The focus on the employability of graduates should initiate from the induction program itself. Academic activities should be properly blended with curricular, co-curricular, and extracurricular activities.

Industry academic interaction is necessary for providing an opportunity for the graduates to feel and experience the industrial culture and happenings. Scheduling live talks and interactions with industry leaders and delegates will be of immense importance in equipping the students employable. Conducting live projects and field studies will also support management graduates in developing their employability skills.

Frequently conducting training programs enables the management graduates to enhance their employability skills. Periodic evaluation of students' performance by faculty, trainers, and industry practitioners is required to get feedback on the performance of the students which will enable them to position themselves in the job market.

Management institutions should empower faculty members to practice and promote design thinking to enable graduates to be good at creative problemsolving. Case discussions and discussions on live industrial happenings will enable students to be good at analytical and critical thinking. Special emphasis and interventions need to be provided in upgrading the technological know-how of the students. Management students are expected to be aware of and familiar with the latest technological trends and updates by undergoing internships and by attending seminars and workshops.

CONCLUSION

Employability of management graduates is a key issue in the present scenario as a considerable percentage of graduates successfully completing management education is not getting employment, due to the lack of certain employability skills expected by the employers. The present study examines the critical employability skills required for management graduates in getting campus placements and evaluates the challenges faced by management graduates in getting campus recruitments. The study finds that communication skills and the ability to work in a team, interpersonal skills, management skills, and taking initiative were the most important employability skills required for management graduates in

getting campus recruitments. Lack of self-confidence and lack of communication skills were the predominant challenges faced by management graduates in getting campus placements. Management education should be a transformation program, where graduates will be moulded with the required employability skills to fit industry expectations. The entire two-year program should be preplanned with co-curricular and extracurricular activities, with a view to develop and enhance the employability skills of graduates in line with industry expectations.

REFERENCES:

- <https://www.census2011.co.in/census/state/kerala.html> retrieved on 24 June 2022.
- <https://hbr.org/2018/09/why-design-thinking-works> retrieved on 22 June 2022.
- <http://www.slideshare.net/GURI02ANTAL/> retrieved on 12 July 2022
- Nawaz, Dr. M Nishad and Dr. B. Krishna Reddy (2013), Role of Employability Skills in Management Education: A Review, *ZENITH International Journal of Business Economics & Management Research*, 3(8): 34-45.
- Das, S K Manju and Dr. R. Velmurukam (2019), Skills for Employability among MBA Students. The Gap Between Skill and Employability- A Study Conducted among MBA Students and Employers, *Journal of Advanced Research in Dynamical and Control Systems*, 2(7): 1-7.
- Samuel, Reba and Nima Ravi (2021), Factors Affecting Employability Skills of Management Students, *Asian Basic and Applied Research Journal*, 3(3): 30-38.
- Hande, AvinashBhagwan and Dr. Manisha Purohit (2021), An Analysis of Employability Skill Sets of Management & other Graduates, *IBMRD's Journal of Management and Research*, 10(2): 66-70.
- Pradeep, K. M., S. Edmund Christopher, D. Kinslin (2018), Management Education in Kerala-Impact on Employability, *International Journal of Engineering & Technology*, 7 (3): 375-378.
- Asirvatham, Arulselvam, Dr.A. JelinceDhinakar, and Dr.P.Ganapathi (2017), Role of Employability Skills in Management Education: An Over Review, *International Journal of Current Engineering and Scientific Research*, 4(9): 2394-0697.
- Wentling, R.M. (1987), Employability skills: The role of business education, *Journal of Education for Business*, 62 (7), 313-317.
- Gurvinder Kaur, Sharan Kaur Garib Singh, (2008), Malaysian graduates' Employability skills, *UNITAR E-JOURNAL*,4(1),15-17.
- Marelli Hoge, Anne F Marelli &J Tondora, (2005), The fundamentals of workforce competency:implications for behavioral health, *Administration and Policy in Mental Health and Mental Health Services Research* ,32,4.
- Chandra Vadhana R,Sreejith Menon,(2019),Identifying Employers' Perception of Employability skills of graduates using framework of job classification - A study among HR Managers in Kerala, *International Journal of Management, IT & Engineering*,9(7),461-463.

GREEN HRM AS AN INNOVATIVE STRATEGY FOR COMPETITIVE ADVANTAGE: A CASE STUDY OF BHEL

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Abstract

Greening and sustainability are the two terms which are worthy of attention and have inevitable consequences in this century. These words can also be seen as a facelift towards an eco-friendly and sustainable environment. Green Human Resources Management (Green HRM), a socially responsible and environment-friendly form of traditional human resources management, has become a trend in research. To meet the Sustainable Development Goals (SDG) of the United Nations (UN) by 2030, the adoption of Green HRM is gaining so much relevance and weightage. Now organisations that have already attained an optimum level of economic stability are beginning to oversee their growth beyond the monetary goals and aiming for social and environmental stability. By incorporating the Triple Bottom Line (TBL) concept into the prevailing management theories, a new version of the economically feasible, socially responsible, as well as environmentally viable HR business model is being adopted by big corporates for a few years to increase the efficiency and as an added competitive advantage. The present study is a qualitative research paper which elaborates on the concept of Green HRM as a modern and strategic tool for adding competitive advantage. The article explains the role and nature of this practice in the Indian context focusing on Indian Central Public Sector Enterprises (CPSEs) belonging to the Maharatna category. The study adopts a case study method to deeply analyse and understand the organisation's green practices.

Keywords: Green Human Resources Management (Green HRM), Sustainability, Sustainable Development Goals (SDGs), Public Sector Undertakings (PSUs), Indian Industry, Triple Bottom Line (TBL)

1. INTRODUCTION

Green Human Resource Management (Green HRM) is a contemporary human resource management construct (Dumont et al., 2015) that is framed and incorporated primarily for enhancements of Corporate Social Responsibility (CSR) initiatives. Against globalisation and IT exploration, today's business enterprises are pressured to make immediate and feasible plans, strategies, and decisions for meeting economic and other financial goals. In this journey to achieve economic stability, there is a tendency to leave back the other two bottom lines like society and the environment by the corporates, resulting in a state of distortion. Here comes the importance of human resources and their behaviour in an organisation.

Human Resources are the key critical factor (Chaudhary, 2018) in any organisation as they are its principal knowledge capital and policy and plan implementors. So, recruiting, retaining, and advancing these talents are inevitable and an added advantage for any company in this highly competitive environment (Chaudhary, 2018). The attraction and attrition of suitable candidates are not only based on economic performance, but these prospective candidates will prefer socially and environmentally responsible organisations

over others regarding employer selection (Albinger & Freeman, 2000). But still, there is some inconsistency while considering the environment as a part of CSR and as inevitable for sustainable growth of the economy. Green HRM is then the concept and policy which specifically deals with the significance of ecology internal and external of the organisations and the importance of the natural environment among policymakers and economic constructs.

The fast-track growth of the Indian economy has been reaping many benefits multidimensionally- the organisation's economic, social and environmental benefits. Some economic advantages include declining unemployment, increased salary and wages and improved quality of life. Social benefits are access to clean water and sanitation, required medical care and support to the local community by encouraging and providing entrepreneurial and other opportunities. Official data indicates that India's forest cover has increased by 1% since 1990 because of the utilisation of the inputs from the emerging economy. This shows the positive impact on the environment caused by this growth.

Along with these gains, the other side of the coin should also be considered. Adverse effects like a significant increase in demand for energy, increased air pollution and greenhouse gas emissions due to industry and transport development, soaring water and land pollution caused by rapid urban growth, and some transnational companies (TNCs) in India have caused visible and excessive environmental damage. Thus, these developments and meeting current needs by overusing the resources without keeping them for the future generation will cause hindrance to sustainability.

So, the growing concern for a sustainable environment and its management created a need for corporates to adopt green practices. Organisations are now making an effort to integrate environmental management with Strategic Human Resource Management (SHRM) with these concerns and frame a new area called Green HRM, which showcases the environmentally-friendly form of traditional HRM. The concept undertakes that this initiative will result in greater efficiency, lower costs, and better employee engagement and retention and ultimately result in lower carbon footprints (Sharma & Gupta, 2015). HR specialists and researchers opine that Environment Management System (EMS) can only be effectively and efficiently incorporated if the organisations have the right people with the right skills and job competencies (Daily & Huang, 2001).

The present study thus focuses only on the Indian context of the Green HRM policies through a case study of select Central Public Sector Enterprise (CPSE) based on available literature. It mainly details the initiatives of Maharatna enterprise- BHEL- among the CPSEs as a qualitative case study.

2. THEORETICAL BACKGROUND OF GREEN HRM

The green movement, a political movement that advocates four principles - Environmentalism, No-Violence, Social justice and Sustainability- is the idea behind the origin of the concept of Green HRM. To combat and overcome the issues of sustainability, United Nations Global Compact collaborated with many educational institutions and framed Principles for Responsible Management Education (PRME), which encourages students, practitioners, and researchers to develop the knowledge base to promote and drive toward sustainability.

Green HRM is such kind of concept which is interdisciplinary, drawing from organisational themes within strategic management (Jabbour et al., 2010), training and development (Westerman et al., 2021), organisational performance and performance management (Jabbour & de Sousa Jabbour, 2016), corporate culture (Jabbour, 2011), employee engagement (Ababneh, 2021), and Organizational Citizenship Behaviours (OCB) (Hooi et al., 2021). It can be defined as a 'systemic, planned alignment of typical human resource management practices

with the organisation's environmental goals' (Jabbour, 2013). Now, most corporates try implementing Environment Management System (EMS) as a proactive strategy to achieve a competitive advantage over others (Daily & Huang, 2001). This system will aid in better controlling the environmental impacts caused by the industries (Barnes, 1998). Some studies discuss the positive effects of green intellectual capital on ecological citizenship, which will further lead to competitive advantage for firms (Sudin, 2011). Thus, as Wehrmeyer and Parker (1996) quoted, there is a high need to redefine the role of HR, from HR Specialists to environmental executives.

3. RESEARCH OBJECTIVES

- To provide a basic understanding of the concept of Green HRM
- To find various initiatives taken up by BHEL
- To understand the importance of green initiatives in the Indian business scenario.

4. METHODOLOGY

The study is entirely based on secondary data with the help of articles published in quality journals, official websites and other resources. The case study will consider only the Central Public Sector Enterprise with Maharatna status.

5. CASE ANALYSIS

Maharatna Scheme was introduced for Central Public Sector Enterprises (CPSEs), with effect from 19th May 2010, to empower mega CPSEs to expand their operations and emerge as global giants. The scheme's objective is to delegate enhanced powers to the Boards of identified large-sized Navratna CPSEs to facilitate the expansion of their operations in domestic and global markets.

Following CPSEs have been identified as Maharatnas:

- 1) Bharat Heavy Electricals LTD.
- 2) Bharat Petroleum Corporation LTD.
- 3) Coal India LTD.
- 4) GAIL (India) LTD.
- 5) Hindustan Petroleum Corporation LTD.
- 6) Indian Oil Corporation LTD.
- 7) NTPC LTD.
- 8) Oil and Natural gas Corporation LTD.
- 9) Power Finance Corporation LTD.
- 10) Power Grid Corporation of India LTD.
- 11) Steel Authority of India LTD.

The factors considered to be Maharatnas are public shareholding, annual turnover, annual net profit and net worth, and significant global presence and international operations. These PSUs are now highly competitive and emerging economies. So, studying their environmental responsibilities and initiatives toward sustainability is highly needful.

Case of Bharat Heavy Electricals LTD. (BHEL)

BHEL is India's most significant engineering and manufacturing enterprise in the energy and infrastructure sectors. Established in 1964, they are a leading power equipment manufacturer globally and one of the earliest and leading contributors to building an Aatmanirbhar Bharat. Bharat Heavy Electricals Limited has been one of the founding members of the United Nations Global Compact India network. HR department publishes sustainability reports annually, giving annual economic, social, and environmental performance accounts.

BHEL conducts business in such a way as to minimise its environmental footprint across the value chain. They continuously strive for cleaner products with a long-life cycle. Efforts in the conventional energy sector helped the transition of the power producers from subcritical to

super-critical and then to ultra-supercritical and the latest Advanced-Ultra-Super-Critical technology for increasing the overall efficiency of the power production and reducing the associated impact.

❖ **Features and Functions of BHEL**

- Well-established player in electric mobility, renewable energy etc. and exploring Green Hydrogen space.
- Environment enrichment programme deployed across the organisation helps ensure optimal utilisation of vital natural resources such as material and water, waste management such as scrap and effluent, reduction of emissions, and enhancing the verdant cover across our establishment.
- Focus on workforce development through training or retraining of the workforce in this dynamic business environment, development of e-Modules for ensuring the continual movement of the crew, leadership development, strengthening of internal communication, simplifying policies for making them employee-centric, etc. All these initiatives resulted in BHEL being ranked 7 in the 'Times Ascent Dream Companies to Work For' survey by World HRD Congress and winning the Platinum Award under 'APEX India HR Excellence Award- 2020' for excellence in HR practices in Engineering Sector, among others.
- Facilitate our customers in managing their environmental and social impacts throughout the entire operational lifecycle of the power plants by offering them state-of-the-art engineering and technology inputs for reducing greenhouse gas emissions - as well as water consumption, better temperature rate, less auxiliary power consumption with less fuel requirement resulting in the lesser environmental footprint of our products and services.
- obtained ISO 50001 certification to harness energy-saving opportunities to the extent feasible.

➤ **Managing Water**

- Sustainable water use is one of the essential features of the company's management processes to optimise the organisation's water footprint to the extent feasible.
- They provide complete water management solutions for sustainable use of water resources for power plants, industries and municipal applications through:
 - ✓ Pre-Treatment Plants (PT)
 - ✓ Sea Water Reverse Osmosis (SWRO) and Demineralization (DM) Plants
 - ✓ Effluent Treatment Plants (ETP)
 - ✓ Sewage Treatment Plant (STP) and Tertiary Treatment Plants (TTP)
 - ✓ Zero Liquid Discharge (ZLD) Systems
 - ✓ Eco-friendly solutions for water bodies' purification

➤ **Material and Natural resource Management**

- Principle of Reduce-Recycle-Reuse is extensively used in planning and operations
- Due to the varied nature of products and associated input materials across the organisation, measurement of material consumption in terms of weight or volume of raw materials consumed in physical terms as per Global Reporting Initiative (GRI) standards

➤ **Sustainable Energy Management**

- Units considered energy-intensive have undergone the detailed energy audit process and subsequently obtained ISO 50001 certification to harness energy-saving opportunities to the extent feasible.

- Reduction in lighting load through switching to energy-efficient lighting fixtures in offices/street lighting.
- 1 & 2 - star ACs with latest 5-star rated ACs and replacement of LPG Cylinder by PNG Gas by laying Natural Gas Line
- **Energy Conservation /Efficiency**
 - “Energy Saved is Energy Produced.”
 - Energy conservation/ efficiency projects have resulted in significant savings in energy consumption.
 - Detailed energy audit process has been undertaken, and subsequently, ISO 50001 certification has been obtained.
 - Pillars of energy management: Awareness generation, energy efficiency, and energy conservation
- **Green Energy Generation**
 - BHEL has established many solar power plants across its premises for their captive use, some of which are interactive grid systems.
 - Numerous solar rooftop installations also cater to local lighting requirements of the building where it has been installed.
 - The share of renewable energy in our electricity consumption is increasing, making our indirect energy consumption more sustainable.

BHEL tries to create awareness amongst the families of its employees, students, people residing in the vicinity of its physical footprint and other stakeholders as to how they can contribute towards the protection of the environment as an individual by involving them in celebrating World Environment Day (WED) – these include mass tree plantation, competitions for students like - poster making, quiz, slogan writing, elocution, environmental march for creating awareness about the environment etc. Sustainability is their guiding force which would help transform them into a Vibrant Global Enterprise.

6. CONCLUSION

Green management and human resource management practices are an edge for achieving competitive advantage (Muisyo et al., 2022) by big corporates striving for excellence over others. From the case study of Bharat Heavy Electricals Limited (BHEL) presented above, it could be concluded that the CPSE has been a leading firm in the engineering and manufacturing industry. Sustainable Development is one of the core elements of BHEL which guide them. The sustainable report published yearly by the Human Resource department is an indicator of the commitment of BHEL to society and the environment. The active role of BHEL in these sustainable initiatives contributes to its healthy and sustainable future. The study opens for further research on the empirical studies based on the cases of CPSEs and other small and medium-level industries. There is a scope for a comparative study between PSUs and private enterprises based on their roles in environmental and sustainable initiatives.

REFERENCES

- Ababneh, O. M. A. (2021). How do green HRM practices affect employees' green behaviours? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 64(7). <https://doi.org/10.1080/09640568.2020.1814708>
- Albinger, H. S., & Freeman, S. J. (2000). Corporate social performance and attractiveness as an employer to different job seeking populations. *Journal of Business Ethics*, 28(3). <https://doi.org/10.1023/A:1006289817941>
- Barnes, F. C. (1998). ISO 9000 MYTH and REALITY: A Reasonable Approach to ISO 9000. *Spring*, 23(2).

- Chaudhary, R. (2018). Can green human resource management attract young talent? An empirical analysis. *Evidence-Based HRM*, 6(3). <https://doi.org/10.1108/EBHRM-11-2017-0058>
- Daily, B. F., & Huang, S. C. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of Operations and Production Management*, 21(12). <https://doi.org/10.1108/01443570110410892>
- Dumont, J., Shen, J., & Deng, X. (2015). GREEN HRM PRACTICES: A CASE STUDY. *Journal of International Management Studies*, 15(2). <https://doi.org/10.18374/jims-15-2.2>
- Hooi, L. W., Liu, M. S., & Lin, J. J. J. (2021). Green human resource management and green organisational citizenship behaviour: do green culture and green values matter? *International Journal of Manpower*. <https://doi.org/10.1108/IJM-05-2020-0247>
- Jabbour, C. J. C. (2011). How green are HRM practices, organisational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, 43(2). <https://doi.org/10.1108/00197851111108926>
- Jabbour, C. J. C. (2013). Environmental training in organisations: From a literature review to a framework for future research. *Resources, Conservation and Recycling*, 74. <https://doi.org/10.1016/j.resconrec.2012.12.017>
- Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2016). Green Human Resource Management and Green Supply Chain Management: Linking two emerging agendas. *Journal of Cleaner Production*, 112. <https://doi.org/10.1016/j.jclepro.2015.01.052>
- Jabbour, C. J. C., Santos, F. C. A., & Nagano, M. S. (2010). Contributions of HRM throughout the stages of environmental management: Methodological triangulation applied to companies in Brazil. *International Journal of Human Resource Management*, 21(7). <https://doi.org/10.1080/09585191003783512>
- Muisyo, P., Su, Q., Ho, T. H., Julius, M. M., & Usmani, M. S. (2022). Implications of green HRM on the firm's green competitive advantage: the mediating role of enablers of green culture. *Journal of Manufacturing Technology Management*, 33(2). <https://doi.org/10.1108/JMTM-01-2021-0033>
- Sharma, R., & Gupta, N. (2015). Green Roof: An Innovative Approach To Achieve Environmental Sustainability and Thermal. *Twelfth AIMS International Conference on Management, June*.
- Sudin, S. (2011). Strategic Green HRM: A proposed model that supports Corporate Environmental Citizenship. *2011 International Conference on Sociality and Economics Development*, 10.
- Westerman, J. W., Nafees, L., & Westerman, J. (2021). Cultivating Support for the Sustainable Development Goals, Green Strategy and Human Resource Management Practices in Future Business Leaders: The Role of Individual Differences and Academic Training. *Sustainability*, 13(12). <https://doi.org/10.3390/su13126569>

Websites

[sustainability_report_2020-21-2022-07-02-03:20:12.pdf \(bhel.com\)](https://www.bhel.com/sustainability_report_2020-21-2022-07-02-03:20:12.pdf)

ROLE OF EMPLOYEE ENGAGEMENT IN THE IT INDUSTRY- A STUDY IN THE TIRUVALLUR DISTRICT OF TAMILNADU STATE

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Abstract

Employee engagement is the positive attitude of each employee towards the business and the value of the organization. This research paper aims to see the factors influencing employee engagement. Employee engagement is one of the factors that significantly influence company performance. The problem in this study states that there exist plenty of demands in today's workplace, such as an increase in production, loyalty, and trust that depends mainly on the employer-employee relationship, which has to be met, among other expectations. These unmet demands can lead to employee turnover, low efficiency, and productivity. A recent survey indicates that employee disengagement hurts both employees and employers. The scope of the study was confined to employees working in the IT industry. The area focused on improving working conditions, effective administration, communication interfaces, decreased staff turnover, support for closer collaboration with coworkers, and raising employee engagement.

The purpose of this study was to examine which factors influence employee engagement. The present study is taken up the following objective to find out the emerging trends and challenges in employee engagement and identify the key factors influencing employee engagement in the IT industry and to suggest various measures to improve employee engagement in the IT industry.

Data was collected from a survey of 120 employees from various IT organizations located in the Tiruvallur district. The target population of this study is male and female consists of Technical positions and Managerial positions. Primary data was collected by using the questionnaire method. A well-structured questionnaire covering multiple dimensions of employee engagement was based on a review of the literature and research by the different authors, and employees were asked to rate on a scale of 1 to 5; it was strongly disagreed to agree. Several statistical tests like Mean, Standard Deviation, and ANOVA were carried out to assess the information trend and analyze the key factors influencing the employee engagement in the IT industry. The findings also confirm that some factors influence employee engagement. Especially digital technologies were influencing engagement. This study provides valuable insights for the industry to understand the relationship between the employee and employer and how these factors influence and strengthen employee engagement.

Keywords: Employee Engagement, Digital Technologies, Work-Life Balance, Employee Relations, IT industry

Introduction

Employee Engagement is stronger predictor of positive organizational performance clearly showing the two-way relationship between employer and employee. Engaged employees are emotionally attached to their organization and highly involved in their job with a great enthusiasm for the success of their employer, going extra mile beyond the

employment contractual agreement. Employee engagement is a continuous process that includes job satisfaction, work commitment, and work efficiency rather than a separate idea with periodic perks and bonuses. Technology is in a continuous state of development and upgrade, so there is no wonder why it influences all the industries existent out there. The Information technology (IT) industry is an essential component of the technology driven knowledge economy of the 21st century. In fact, globally India has been recognized as a knowledge economy due to its impressive IT industry. The growth of the IT industry in India is unprecedented across the economies of the world.

Review of Literature

Dr.B.Saipriya et al found that IT firms can focus on employee expectations and develop HR practices which could develop employee engagement. IT firms can also focus on career development and job recognition which acts as a boosting factor for developing employee commitment and performance. As the major challenge is on balancing work and personal life especially among the female employees, strategies to maintain the same has to be developed by the IT firms. C V Lolitha, Johny Johnson concludes that the importance of employee engagement in the organizational setting is undeniable. Prudent practice of engaging employees should be implemented in the organizations in order to enhance their commitment to the organizations. They found that the employee engagement is positively correlated to affective, continuance and normative commitment. Employees are the assets of any organizations and organizations should adopt impeccable measures to engage their key performers to build a committed work force.

Saks argues that “commitment is a state of being in which an individual becomes bound by actions and beliefs that sustain his activities and his own involvement. Dineshkumar S, Mrs. Benita, S Monica and Dr. Sugundan N study based on organizations with disengaged employees are to suffer from waste of effort and drained talent, less commitment from employees, increased absenteeism which will in turn lead to less customer orientation and less productivity. Employee engagement has great impact on the IT industry. An engaged employee will have enthusiasm and satisfaction toward his work. This will wave way for increase in productivity and innovative behavior. This will create a good working environment for all the employees thus taking the organization towards developing path. Deotima Saha, Deepika Pandita conclude Gamification does not imply creating a game. It means makes HR initiatives more fun and engaging employees without undermining its credibility. Gamification helps employees gain motivation towards their role and KRAs. And because of the positive feedback they get pushed forwards and become more interested and stimulated to learn.

Simpson and Jenkins found out gamification is not only about virtually recreating a mesmeric experience by using game elements and mechanics, it is also about designing HR processes by utilizing ideas of best practice from a range of fields- fun and motivation in particular. Niamh Muldoon reported that they worked harder in the home than they did at the office. Further research around this would be beneficial for employers especially those who may be introducing working from home in the future. this puts extra pressure on those working from home as they feel the need to prove themselves and a sense of paranoia at how they are perceived by management when working from home. Many employers may benefit from further research regarding output at home versus output at the office as the participants in this research reported themselves that they worked harder at home but there was no measure of output by their employers.

Parveen Kaur stated that the effectiveness can be affected by improving the competence of both managers and employees to make better, quicker decisions. The constant development of technology synchronized with more savvy use of the internet is

facilitating smaller organizations, to have access to applications, such as automated payroll, time and attendance systems, application tracking/recruitment software, networks and intranets, that ease communication benefits and assists employees self-service and workforce data and analytics.

Susi. S and Jawaharrani examined some of the literature on Employee engagement, explore workplace culture and work life balance policies and practices followed in industries in order to promote employee engagement in their organizations to increase their employees' productivity and retain them. Work-life balance is key driver of employees' satisfaction.

Shashi reinforced the importance of employee communication on the success of a business. She revealed that an organization should realize the importance of employees', more than any other variable, as the most powerful contributor to an organization's competitive position. Kular et al., noted that employee engagement is able to predict employee turnover intention, employee productivity, financial performance, customer satisfaction, and so forth. Employee engagement has emerged as a critical element for business success. It has now been the need of the hour to do more empirical research on employee engagement and its work antecedents in IT industry to retain talents. Strohmeier defines e-HRM as the application of information technology for networking and supporting at least two individual or collective actors in their shared performing of HRM activities.

Statement of the Problem

An disengaged workforce is destructive in every way, including through lower productivity, high employee turnover, absenteeism, low work morale, etc. The first barrier that presents itself is the lack of clarity amongst the staff and the management. Lack of appreciation is one of the principal reasons for employees quitting from their jobs. A culture that doesn't promote recognition and rewards alienates the workforce disregarding one of the most fundamental needs of social recognition. Many businesses neglect the idea of work-life balance and instead want employees to prioritize work most of the time. For workers to be as effective as possible, a healthy work-life balance is essential. Communication is the problem that is on the priority list during the pandemic situation. Recent survey indicates that employee disengagement has a negative impact on both employees and employers.

Scope of the study

The scope of the study is confined to employees working in the IT industry. The area focused on the area of improvement in working conditions, effective administration, communication interfaces, decreases staff turnover, supports closer collaboration with workers, raises employee engagement.

Objectives of the study

- ◆ To study the emerging trends and challenges in effective employee engagement in IT industry.
- ◆ To identify the key factors influencing the employee engagement in the IT industry.
- ◆ To suggest various measures to improve the employee engagement in the IT industry.

Concepts to be used

Job Satisfaction

Job satisfaction varies from employee to employee. In the same workplace under the same conditions, the factors that help one employee feel good about their job may not apply to another employee. Job satisfaction is defined as the level of contentment employees feel with their job. This goes beyond their daily duties to cover satisfaction

with team members/managers, satisfaction with organizational policies, and the impact of their job on employees' personal lives.

Interpersonal Relationship

An interpersonal relationship is a strong, deep, or close association or acquaintance between two or more people that may range in duration from brief to enduring. This association may be based on inference, love, solidarity, regular business interactions, or some other type of social commitment. Interpersonal relationships are formed in the context of social, cultural and other influences. The context can vary from family or kinship relations, friendship, marriage, relations with associates, work, clubs, neighborhoods, and places of worship. They may be regulated by law, custom, or mutual agreement, and are the basis of social groups and society as a whole.

Work Life Balance

Work-life balance is an aspect of employee well-being related to the employee's ability to manage both personal and professional responsibilities with adequate time for rest and leisure. Each individual may define his or her ideal work-life balance differently.

Motivation

Edward L. Deci et al have explained about motivation in their study that the management of employees with their environment is associated with their intrinsic motivation. The employee's physical activities with regard to sports was considered for rewards and recognitions to encourage the employees. Human motivation is understood as an inner feeling or experience felt within. Self determination theory was highlighted in their study. Employees feels more encouraged and when they are appreciated they feel motivated.

Research Methodology

The primary data collected for this study is structured questionnaire. Questionnaire is collected from respondents in the form of Google form. The Secondary data was reviewed from the source materials, Text books, latest publication and the thesis in the selected discipline. The Target population for this study includes the employees of technical positions and clerical positions and managers. This target population was selected based on convenience sampling method.

Sample is taken from the employee of IT industry in Tiruvallur district. There are totally 22 IT companies which have various types of IT related sectors that is IT enabled services and BPO and also software manufacturers. The sample has been drawn from a population of nearly 400 employees from the industry. Data was collected from a survey of 120 employees from various IT organizations located in the Tiruvallur district.

A well-structured questionnaire covering multiple dimensions of employee engagement was based on a review of the literature and research by the different authors, and employees were asked to rate on a scale of 1 to 15; it was strongly disagree to agree. Statistical test like Mean, Standard Deviation and ANOVA were carried out to assess the information trend and analyze the key factor which influence the employee engagement.

Limitation of the study

Area of the study was restricted only in Tiruvallur district. Respondents were reluctant to disclose complete and correct information. Because of a small period of time only small sample had to be considered which doesn't actually reflect and accurate and intact picture.

Analysis and Findings

1. Majority of the respondents are comes under the age of 25-35 years nearly 46%, 34 % of respondents are up to 25 years, 17 % of the respondents are 35-45 years, 4% of the respondents are above 45 years.

2. Majority of the respondents are female nearly 55% rest of them are male.

3. Majority of the respondents that is 75% of them are working up to 8 hours per day and 20.83% of respondents are working 8-10 hours and 4.17% respondents are working more than 10 hours.

4. Majority of the respondents that is 38% of respondents are having 0-3 years of working experience, 29% of respondents are having 3-5 years of working experience, 17% of respondents are having 5-7 years of working experience, 17% of respondents are having more than 7 years of working experience.

5. Majority of the respondents that is 66% of them educational qualification is UG, 22% of respondents are PG graduates, 13% of respondents are done professional courses.

6. The primary data analysis shows that most of the respondents says that in between level of Agree and Neutral. It clearly shows that the respondents agree with the variables of work-life balance, organization support, job satisfaction, expectation, communication, team work collaboration. It shows that the employees are satisfied with the key factors. 80% of the respondents are agree with the term of factor influencing the employee engagement.

7. Increased demand for work life balance- As a result of the pandemic and stay-at-home orders, many companies worldwide quickly transitioned to remote work. The data shows that 88 percent of companies encouraged or required their workers to work from home since the pandemic started. Even though remote work allows employees the flexibility they need to remain productive, we have to consider its impact on employees' personal lives.

8. Emotional Connection-According to the employee engagement trends 2022, companies will need to prioritize employees' emotional connections. Making emotional connections at work should not be misconstrued as being emotional or showing emotion; instead, it's about employees' human connections with one another. When companies prioritize emotional connections, they foster positive work cultures with better employee engagement, higher loyalty, and better profits.

9. Employee Recognition-Employee recognition has become even more critical now than ever for employee engagement. When most employees worked out of their office spaces, it used to be relatively easy and spontaneous for coworkers to praise each other during meetings and other informal interactions.

10. Challenges-In today's modern workplace, engaging employees is critical for retaining top talents, improving business productivity, and delivering higher profits. Organizations invest in recruitment and training to establish a motivated workforce that has a range of benefits like decreased employee absenteeism, reduced turnover, and consistently good customer service. Disengaged employees prove to be detrimental in the workplace. These individuals have low productivity and can be a poor cultural fit, especially when working with high performers. Leaders should recognize the signs of employee disengagement and ways to handle them as early as possible. After conducting an employee engagement survey, it is time to review the data for each business unit to analyze that can enable managers to make meaningful changes to build a more engaged workforce. Managers should also meet with team members and communicate survey results. After this, they should create action plans that will address survey recommendations. In addition, management may ask engagement objectives from each employee in their performance reviews to come up with engagement goals from the top, the middle, and the bottom.

Conclusion

Employee engagement is a critical function that needs consistent research & constant monitoring throughout the life of an organization. Devising an ideal employee engagement programme needs the support from the employees & the organizations should take into account the personal, professional, & social aspirations of the employees while

designing & implementing the programme. The changed lifestyles of the employees & the potential challenges present in both the internal & external environment have deep impacts on the employee work life. The success of an employee engagement programme lies in tackling such crucial challenges & changes.

Suggestions

- ◆ Employee Engagement is not something that simple just happens; it only develops in organization that really cares for employees and their well being. Measuring and assessing employee engagement accurately is important, any organization should understand in depth what drives employee engagement in their organization.
- ◆ The IT organizations should adopt a comprehensive “Employee Engagement” model which accommodates & nourishes the personal, professional & social life of the employee by giving due consideration to the gender & generational differences.
- ◆ The organizational initiatives to ensure quality time for the employees through different polices like flexi timings, family tours, get together at the office etc. could create an emotional bondage between the employees & the organization this would leads to atendency to work productively during the work hours.
- ◆ For IT employees constant up gradation of skills & training is mandatory to cope with the rapid advancements in the technology. Organizations should provide the employees ample opportunities to develop & grow by consistently employing training programmes & higher education programmes at the work place. Providing a platform for creative & innovative initiatives by the employees will definitely boost up their motivation & commitment towards the organization & studies shows up that highly motivated & committed employees can be effectively engaged in the work than others.

References

- V.Sathyavathi, Dr.R.Angayarkanni (2020), Impact of Employee performance of IT employees in Chennai during Covid-19 lockdowns, International journal of pharmaceutical sciences review and research, September-october 2020, Article No.11, Pages:65-69.
- Dr.B.Saipriya, T.Krishnapriya (2020) , A Study on Employee Engagement at IT Sector,Chennai, International Journal of Innovative Research in Technology,Vol 7, Issue 1.
- Kaarst-Brown, M., J. Quesenberry, F. Niederman, and T. Weitzel (2018). “Special IssueEditorial: New Approaches to Optimising the Digital Workforce.” MIS QuarterlyExecutive. 17(4).
- Graham, L. (2017). “Cybercrime Costs the Global Economy \$450 Billion: CEO.”Accessed 31 July 2019. www.cnb.com/2017/02/07/cybercrime-costs-the-global-economy-450-billion-ceo.html.
- C V Lolitha, Johney Johnson (2017), Twelfth AIMS International conference on Management.
- Dineshkumar S, Mrs.Benita, S Monica and Dr. SugundanN(2017), Work Antecedents ofEmployee Engagement in IT Sector, International Journal for research in Applied science and Engineering Technology, Vol 5,Issue XI.
- DeotimaSaha, Deepika Pandita(2017) Digitalizing Human Resources throughGamification for Employee Engagement, ELK Asia Pacific Journals.
- Stephen, M.(2016). “Digital HR: Revolution, Not Evolution”. In Global Human CapitalTrends 2016. The New Organization: Different by Design. New York, NY: Deloitte University Press. <https://www2.deloitte.com/us/en/insights/focus/human-capitaltrends/2016/digital-hr-technology-for-hr-teams-services.html>

- Simpson P and Jenkins P(2015), Gamification and Human Resources an overview, Brighton Business School.
- T. Bondarouk and C. Brewster (2014),The International Journal of Human ResourceManagement.
- Niamh Muldoon (2014) An investigation into employees perception of working fromhome and how this impact of work-life balance.
- Parveen Kaur (2013) Anveshanam- A National Journal of Management,vol 1,No.1,August 2012-2013.
- Susi.S and Jawaharrani,k (2011), Work-life Balance: The key driver of employeeengagement. Asian Journal of management Research.
- Shashi.T (2011), Employee Engagement- The key to organizational success. ICOQM-10June 28-30.
- Adam Seth Litwin (2010) , Technological Change at Work: The Impact of EmployeeInvolvement on the Effectiveness of Health Information Technology, Industry studiesAssociation working paper series.
- Kular, Richman(2008), Everyone wants an engaged workforce how can you create it,workspan.49(1), 36-39.
- Strohmeier, S. (2007). Research in e-HRM: Review and implications. Human ResourceManagement Review, 17, 19–37.
- Saks,M.A.(2006), Antecedents and Consequences of employee engagement. Journal ofManagerial psychology,21, 610-619.
- Sharna Wiblen, David Grant, Kristine Dery (2006),Transitioning to a new HRIS: The Reshaping of Human resources and information technology talent. Journal of Electroniccommerce Research, Vol 11,No 4.
- Ruel H, T.Bondarouk and J.K.Looise (2004), E-HRM: Innovation or Irritation: AnExplorative Empirical study in Five large companies on web-based HRM, Managementreview, Vol 15, No.3, Page 364-380.
- Judith Gebauer, Michael Shaw, Michele Gribbins (2004),Usage and impact of mobilebusiness applications- An Assessment based on the concepts of Technology Fit.
- Schaufeli.W.B., and Bakker A.B.(2004) Job demands, Job resources and theirrelationship with burnout and engagement: a multi-sample study. Journal ofOrganizational Behavior, 25(3), 293-315.
- Joseph Bradley, Christopher Lee(2004), ERP Training and their satisfaction, AmericasConference on Information Systems.
- Kettley, P. and Reilly, P. (2003) ‘e-HR: An Introduction’, IES Report 398.
- Wiedower, K.A. (2001). A shared vision: the relationship of management communicationand contingent reinforcement of the corporate vision with job performance,organizational commitment, and intent to leave, unpublished Doctoral Diss., AliantInternational University, California.

HUMAN RESOURCE MANAGEMENT FOR QUALITY SERVICE DELIVERY IN GRAMA PANCHAYATS –EMPLOYEES PERSPECTIVE

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Abstract

Grama Panchayat (GP), the third tier of Governance (Article 243 of the Constitution of India), is a frame work consisting of Elected Representatives (Governing body) and Employees of various categories which renders services such as Taxation, Registration of Birth and Death, Identification / Enforcement of Non Tax areas, Registration of marriage etc. and also deals with mandatory utility functions etc. Human resource is the greatest assets because without them, functions of Grama Panchayats such as managing, monitoring, implementation of programmes/projects, communication and dealing with stakeholders could not be done properly. Human resource plays a significant role in the effective performance of any organisation. Managing human resource is a key to success. The quality of the service delivery is to a great extent depends on the quality of its human resource — the better the quality, the higher the level of performance. In order to identify desirable HRM practices that Grama Panchayats should create and maintain high levels of employee commitment and service behaviour culture necessary for delivering quality service to communities, a study was conducted in three selected Grama Panchayats in Kerala. According to the employee's perception, systematic updating of information about the frequent changes made in the Public Service Projects was lacking in the Grama Panchyats and structured communications between the employees and council have to be improved. In general employees do not consider their job as a tool for their personality development which shows the lack of accountability and social commitment among the employees. Only 13% of the employees consider that their performance in the Panchayat office as a factor for enhancing the profile of the Panchayat which is again an indication of their lack of accountability and social commitment. The study thus indicate that proper management of employees is crucial for organisations like Grama Panchayats to achieve more responsive bureaucracy because employees interact directly with customers who make evaluative judgement the quality of service delivered by employees.

Key words: Human Resource Management, Grama Panchayat, Service delivery

Introduction

Managing the human assets in any organisation, be it Government, Public or Private, is a far more difficult proposition than managing other physical and financial assets. Human resource plays a significant role in the effective performance of any organisation. Managing human resource is a key to success. Grama Panchayat (GP), as the third tier of Governance (Article 243 of the Constitution of India), is faced with

many problems and the quality of the service delivery is to a great extent depends on the quality of its human resource — better their quality, higher the level of performance.

Provision of quality service by all spheres of Government to citizens is the primary responsibility of the same. Grama Panchayats (GP) are responsible for delivery of services such as drinking water, sanitation, street light, waste management, and sometimes housing, Panchayat roads, primary health care, child care facilities, local tourism, local planning etc.. The organogram of the Grama Panchayat consists of Elected Representatives (Governing body) and Employees of various categories. The functions of Grama Panchayat include various statutory functions like Taxation, Registration of Birth and Death, Identification / Enforcement of Non Tax areas, Registration of marriage etc, Mandatory functions viz., drinking water supply, street lighting, waste management etc. The various Welfare Programmes implemented and different areas of Service Delivery in Grama Panchayats include Payment of Social Security Pensions, Women and Child programmes, Rehabilitation of Physically and mentally challenged persons etc., issue of various certificates and other Welfare programmes also.

Recent escalation of public protests concerning service delivery is an indictment on Grama Panchayats' ability to provide services that meet citizens' expectations. This occurs despite Government's clear intention about quality service delivery as encapsulated in the Service delivery policy for Kerala in 2003 which reads: "Human resource management in the Public Service will result in a diverse competent and well- managed workforce capable of and committed to delivering high quality services to the people and human resource management in the Public Service should become a model of excellence, in which service to society systems from individual commitment instead of compulsion." Clearly, quality service delivery in Grama Panchayat is an important agenda for the Government and it views proper HRM and employee commitment as critical to achieving service excellence. The extent to which the lowest level of Government – Grama Panchayat share this vision and are committed to delivering the same is however doubtful.

Organisational performance is said to depend on its people (Senyucel, 2009; Van Der Westhuizen; Clarke, 2004; Muldrow, Buckley and Schay, 2002) and more so for service organisations like Grama Panchayats. The point is that in service organisations, employees are the ones who link the organisation with customers (Babin and Boles, 1998; Beatson et al., 2008;) and customers make evaluative judgement of the quality of service delivered by employees (Beatson et al., 2008).

Given the critical role of employees in service organisations, Grama Panchayats cannot ignore the perceptions, attitudes, and behaviours of its employees and their likely impact on service delivery. A systematic study of HR management in Grama Panchayats in this context is expected to be of great help to policy makers in formulating guidelines for human resource management in Grama Panchayats. It would also be useful to the HR managers in the effective implementation of various HR policies in the Grama Panchayats which will improve the service delivery and satisfaction of the employees and benefit the stakeholders which eventually will work to the advantage of the end—users — the society as a whole.

Review of Literature

Human Resource Management

Human resources of an organization can be a source of competitive advantage, provided that the policies for managing people are integrated with strategic business planning and organizational culture (Beer, et al. 1985). Employees are a greater asset than

physical or financial resources, for the talent of employees is what determines an organization's success (Ann, et al. 2009). Development of people, their competencies, and the process development of the total organization are the main concerns of human resource management (Pareek & Rao 1992).

In order to maximize institutional effectiveness, human potentials, individuals' capabilities, time, and talents must be managed and developed (Tirtha, 2015).

Improving public service delivery

Service delivery is one of the most important interfaces between a modern democratic state and its citizens. The aim of public service delivery is to deliver cost-effective, high-quality services that the private sector is unable or unwilling to deliver (Reddy and Lakshmi, 2008). As societies adapt to the fast-changing reality and citizens have greater expectations and demands from the state, the whole framework of service delivery is being looked at from a different perspective. Choice and voice are two requirements that have been identified for shaping more participatory, citizen-centered approaches to service delivery in the UK (ODI, 2004).

New Public Management calls for extensive use of techniques, such as listening to the employees who are in the front line, surveys, hearings, systematic analysis of complaints, customer (citizens) councils, and experimentation (test marketing), as well as range of feedback mechanisms such as suggestion boxes and programme evaluations (Frederickson, 1996), to establish the views of existing and potential users of the services.

The development of a customer or a user focus in the public sector in order to achieve a more responsive bureaucracy has become an emerging concern in many countries, and indeed the provision of public goods and services has invariably become a critical issue in current reform efforts (Pinto, 1998).

According to Flynn (1988), services can be designed and carried out from the perspectives of the users of the services, delivery systems can be more user-friendly, and communications can be improved as can the culture of the service.

Several initiatives have been implemented in recent years to improve relationships between citizens and administration and the quality of service delivery. However, the emphasis on the rule of law, the tradition of bureaucracy and bureaucratic resistance to change have hampered the success of such reforms (Araújo, 1999).

The crux of public sector reform in relation to improving service delivery is by bringing about an attitudinal change in public sector employees who are in the frontline of delivering services to citizens (Pattakos, 2004). In a study sought to identify the causes of poor service delivery and the strategies to improve service delivery in local authorities Makanyeza et al., (2013) pointed out the importance of sound human resource policy that includes capacity building and employee motivation.

In-service training and Human resource Management

Improving the efficiency of organizations depends on increasing the efficiency of human resource and in turn, depends on training and knowledge and skill development and creating favorable behavior of a successful working. Of course, trainings which are purposeful, continuous and high-content and are planned and executed by experienced professors and instructors in teaching are likely to increase the efficiency and performance. These trainings can keep the pace of human resources of an organization with advances in science and technology and be effective in improving the quality and quantity of their work (Safari S, 2006)

Research indicates that investments in training employees in problem-solving, decision-making, teamwork, and interpersonal relations result in beneficial firm level outcomes (Russel et al, 1985; Bartel, 1994).

Methodology

The perceptions of employees (selected randomly from all sections) were collected with the help of questionnaire/schedule prepared for this purpose. Questionnaire had different variables and each variable had four options ranging from extreme negative aspect to extreme positive aspect with reasonable level of intermediary positions. The variables for Questionnaire were prepared in relation to the selected HR aspects of the employees.

Location of the study

There are 941 Grama Panchayats in the state out of which Parassala, Chenkal and Venganoor Grama Panchayats are selected as the sample units for the study because of their size, functions and services available.

Areas of Human Resource Management selected for the study

- i. Duties and Responsibilities
- ii. Delegation of Authority
- iii. Capacity Building Process
- iv. Redresal of Employee Grievance

Areas of service delivery selected for the study

- i. Social Security Pensions
- ii. Issue of certificates

Questionnaires were distributed to 30 employees belonging to three Panchayats at the rate of 10 members from each Panchayat. The collected data were analysed statistically and conclusions were drawn.

Results and Discussion

Since employees were the part and parcel of HR policies, effort was made to identify factors influencing employee perception of human resource management practices.

Perception of employees regarding training exposure

The efficiency and effectiveness of public institutions depend on supportive framework of rules and procedures which enable the bureaucracy to discharge their functions in a citizen centric and responsive manner. This needs highly committed, well-trained and experienced human resources which can undertake and implement policies and programmes of Government. In the absence of such resources, it is necessary to raise the skills levels and increase the versatility and adaptability of current personnel. State Training Policy (STP) implemented in the State aimed at strengthening human capital to improve civil service and strengthen governance. Government have formulated a people-centric Service Delivery Policy for Kerala in 2003.

Employee's perception on amount of training / classes received about the duties and responsibilities

Table 1

No	Option	% of expression
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1	Not at all	0.00
2	Sparingly	46.67
3	Somewhat	40.00
4	Considerably	13.33

From Table 1 it can be seen that 46.67 % of the employees has received a few training about their duties and responsibilities while 40 % of the respondents received fairly good amount of training . The percentage of employees received considerably good amount of training comes to 13 % while the employees who hadn't attended any type of training programmes was zero. In general deputation to periodic training are not in a satisfactory level.

Perception of employees regarding guide lines from within an organisation pertaining for accomplishing work goals

The employees were asked whether they have received any form of directions/guidelines from the senior colleagues / Panchayat authorities on discharging of their duties and responsibilities to which 10 % informed that they are not receiving any directions or guidelines. As many as 43 % admitted that they are receiving a little guidance, while 36 % expressed the view that they are getting reasonable amount of guidance. 10 % claimed that they are getting substantial level of guidance needed to discharge their duties and responsibilities. So according to the employee's perception structured communication between the employees and council have to be improved. The views of Flynn (1988), that services can be designed and carried out from the perspectives of the users of the services, delivery systems can be more user-friendly, and communications can be improved as can the culture of the service, supports the present finding.

Perception of employees regarding delegation of powers

Table 2 Employee's perception regarding delegation of authorities in discharging the duties and responsibilities

No	Option	% of expression
1	Not at all	10.00
2	Sparingly	53.33
3	Somewhat	26.67

4	Considerably	10.00
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From the table 2 it can be seen only 10 % of the employees opined that they have considerable amount of delegation in discharging their duties and responsibilities, while equal amount consider that they do not have any delegation of power. 53 % issomewhat satisfied while 26 % consider that they have a reasonable amount of delegation of power. So it can be assumed that the delegation of power assigned to the employees is at satisfactory level to discharge their duties and responsibilities **Perception of employees regarding the working condition**

Perception of employees regarding updating of information

Table 3 Employee's perception regarding the updation of information about the frequent changes made in the Public Service Projects

No	Option	% of expression
1	Not at all	6.67
2	Sparingly	53.33
3	Somewhat	23.33
4	Constantly	16.67

From the table 3 it can be observed that only 16.67 % employees claim that they were very well updated about the frequent changes made in the Public Service Projects while 6.67 % opined that they are not at all updated with the frequent changes. Nearly half of the employees (53.33 %) said that they were updated with the changes only rarely while 23 % claim that they were updated to a certain extent. Thus from the data it can be inferred that systematic updating of information is lacking in the Grama Panchyats. This is in agreement with the employee's perception that structured communication between the employees and council have to be improved.

Perception of employees regarding their performance within the permitted timelimit **Perception of employees regarding job satisfaction**

Table 4 Employee's perception regarding job satisfaction

No	Option	% of expression
1	Not at all	6.67
2	Sparingly	50.00
3	Somewhat	33.33
4	Extremely	10.00

Regarding job satisfaction only 10 % of the employees are fully satisfied with their duties and responsibilities in the Panchayat while 6.67 % are not at all satisfied. 50 % claim that performance of duties give them a little bit of satisfaction while 33% claim that the discharge of duties give them a reasonable amount of satisfaction. From the data it can be inferred that the employees themselves are not satisfied with their performance in such a condition full justice to service delivery cannot be expected from them.

Perception of employees regarding their job and personality development

Perception of employees regarding the relationship between their performance and the profile of the Panchayat

Being the third tier of Governance, Grama Panchayats are the real authority exercising the statutory and other regulatory enforcements, development activities and administration. Therefore the good will and profile of the Grama Panchayats is very important. The perception of employees to enhance or substantiate the profile of the Grama Panchayats by their activities is to be scaled.

Employee's perception regarding enhancement of the profile of the Panchayat

Table 5

No	Option	% of expression
1	Not at all	36.67
2	Sparingly	33.33
3	Somewhat	16.67
4	Strongly	13.33

From the table 5 it can be observed that 36 % replied that they do not consider it as an important factor whereas 33.33 % felt that it is influencing marginally. 16.67 % of the employees felt that it is influencing to a certain extent while 13.33 % expressed that it has substantial influence. Here also only 13% of the employees consider that their performance

in the Panchayat office as a factor for enhancing the profile of the Panchayat which is again an indication for the substantial need for the improvement of of accountability and social commitment among the employees.

Perception of employees regarding the relationship between training and improved service delivery

The quality of the delivery of service is supposed to be linked with the training received. At the same time the quality man power and quality service have strong relationship. Therefore continuous training is an investment for better HR management and consequent quality service delivery.

Employee's perception regarding the need for more training for providing better service delivery

Figure 5

No	Option	% of expression
1	Not at all	33.33
2	Sparingly	30.00
3	Somewhat	26.67
4	Extremely	10.00

From the data in figure 5 it can be observed that 33.33 % of the participants strongly opined that no further training is needed whereas 30 % felt that further training is marginally required. 26.67 % of the participants opined that further training is warranted to some extent while 10 % strongly supported the need for further training. From the data it can be assumed that majority of the employees consider that appropriate reengineering of existing training is an absolute necessity and an important tool for better service delivery.

The study conducted by Tirtha, (2015) on the role of Human Resource Management in Local Government for Effective Rural Development in West Bengal, India, revealed that the HRM practices had a great impact and significant effect on institutional effectiveness and employee's performance. The study recommended and concluded that the HRM practices are a vital tool to achieve expected rural development in West Bengal. In the present study it can be presumed that the employees themselves are not satisfied with their performance in the Grama Panchayats and in such a condition full justice to service delivery cannot be expected from them. Majority of the employee's perception is again an indication of their lack of accountability and social commitment. The views of Pattakos (2004), that the crux of public sector reform in relation to improving service delivery has to do with improving the efficiency of service delivery by bringing about an attitudinal change in public sector employees who are in the frontline of delivering services to citizens is in full agreement with the present findings. The report of Dzansi and Dzansi (2010) that Proper management of employees is crucial for service organisations like municipalities precisely because employees interface directly with customers who make evaluative judgement of the quality of service delivered by

employees also justifies the findings of the present study.

Reference

- Ann, G, Jerry, WG, Scott, AQ & Pamela, D 2009, *The Praeger Handbook of Human Resource Management*, Praeger Publishers, London, p. xvi-xvii.
- Babin BJ, Boles JS (1998). Employee behaviour in a service environment: A model and test of potential differences between men and women. *J. Mark.* 62:77-91
- Bartel, A.P. (1994) 'Productivity Gains from the Implementation of Employee Training Programs', *Industrial Relations*, 33(4): 411-25
- Beatson A, Lings I, Gudergan SP (2008). Service staff attitude, organisational practices and performance drivers. *J. Manage. Org.* 4: 168-179
- Beer, M, Spector, B, Lawrence, P, Mills, DQ & Walton, R 1985, *Human Resource Management: A General Managers Perspective*, New York, Free Press.
- Daneshfard K, Alipour, K, 2010. The effect of in-service training on improving teaching skills of faculty members, *Tadbir Journal.*, 5 (3): 24-31
- Dzansi Y.D. and Dzansi L W. 2010 Understanding the impact of human resource management practices on municipal service delivery in South Africa: An organizational justice approach *African Journal of Business Management* 4(6): 995-1005
- Flynn, Norman, 1988, "A Consumer-Oriented Culture", in *Public Money & Management*, Vol. 8, N. 1, pp. 27-31
- Frederickson, H. George, 1996, "Comparing the reinventing government with the new Makanyeza C, Kwandayi P.H., Ikobe B.N. 2013 Strategies to improve service delivery in local authorities *International Journal of Information Technology and Business Management.* : 15.(1): 1-11
- Muldrow TW, Buckley T, Schay BW, (2002). Creating Highperformance organisations in the public sector. *Hum. Res. Manage.* 41(3): 341-354
- Overseas Development Institute (ODI). 2004. *Targets, Voice and Choice: Options for Improving Service Delivery*. London: ODI
- Pareek, U & Rao, T V 1992, *Designing and managing human resource systems*, New Delhi, Oxford & IBH Publishing Company
- Pattakos, Alex N. 2004. "The Search for Meaning in Government Service." *Public Administration Review*, 64(1)
- Pattakos, Alex N. 2004. "The Search for Meaning in Government Service." *Public Administration Review*, 64(1)
- Russel J. S., Terborg J. R. & Powers M. L., (1985) "Organizational performance and organizational level training and support", *Personal Psychology*, , 849-863
- Senyucel Z (2009). *Managing Human Resources in the 21st Century*. Available at <http://www.bookboon.com>. Accessed on 23/11/2009
- Thirtha R (2015) *Role of Human Resource Management in Local Self Government: Towards Effective Rural Development in West Bengal, India* 2nd International HRM Conference, Vol.2, No.1, 17th October, 2015 Department of Human Resource Management, University of Sri Jayewardenepura
- Van Der Westhuizen EJ (2005). *Managing people in the twenty-first century: integrative public human resource management in sub-Saharan Africa*. *Politeia*, 24(2):142-160

MARKETING STRATEGIES FOR RURAL AREAS AND BUYING BEHAVIOUR OF RURAL CONSUMERS IN ALAPPUZHA DISTRICT OF COIRFED

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ABSTRACT

In the modern era, the rural market has grown in an abrupt change in terms of size, demand, change in lifestyle of rural consumers, change in consumer preferences, and higher income. Rural markets in India are enormous and scattered and providing immense opportunities for marketing of variety of products in all ranges. Companies or COIRFED (co-operatives) are adopting a diversified strategies and programmes in order to market their products among consumers in rural areas. Coir industry provides employment opportunities and generates income to the people particularly in rural areas and thereby promotes country's economy. About 76% of the total coir societies in India are located in Kerala. Ninety-three per cent of members and 74% of the workforce belong to Kerala, especially in Alappuzha District. The co-operativisation scheme is aimed at solving the problems of the actual workers and the small producers engaged in the industry, ensuring them regular work and a living wage, stabilising the industry on a sound and stable footing by cutting out middlemen and eliminating corrupt practices; and establishing improved standards and quality for the products so as to attract and ensure a better market. In COIRFED, products are produced at low level and work is done by skilled workers. Thus, in order to improve buying behaviour of consumers, COIRFED should provide quality of products at low price to rural consumers and stores must display all type of products with features to attract rural consumers to enhance their buying behaviour.

Keywords: Buying Behaviour, Coir co-operatives, Marketing Strategies, Rural Consumers.

1. INTRODUCTION

Rural development is the process of improving the quality of life and thereby increasing the economic well-being of the people living in the rural areas. Rural markets are tomorrow's markets in India. The rural consumer is growing and this is an opportunity to capture the market share for all the players in the market (Kumar, 2016). Positioning and realities regarding the potential of each of these market segments differ and lie at the very core of forming the strategy for the rural markets. Rural marketing in India is the most potential area for expansion of marketing activities of various products and it is continuously growing due to increase in income of rural consumers and knowledge on quality consumption and transformation in their life styles (Rithvikaa and Ramachander, 2017).

A complex set of factors influence rural consumers behaviour. Social norms, traditions, caste and social customs have greater influence in consumer behaviour in rural areas than in urban areas. Purchase decision process and preferences also show certain characteristics that are quite significant implications. Exhibitions and road shows act as some of the key triggers for information search behaviour (Chhabra and Farooqu, 2018). Opinion leaders and people who are perceived to be knowledgeable play an important role as information providers and advisors. Word of mouth has more significance in the purchase decisions of rural consumers.

As the perceived risk of buying tends to be higher, rural consumers exhibit a greater involvement in the purchasing process.

The Coir Industry is one of the most important traditional largest cottage and small-scale industries for its contribution to Indian economy and employment generation. Kerala is considered as the home of coir industry. Alappuzha COIRFED is the single and premier marketing agency with state-wide jurisdiction over primary coir societies. Women constitute about 75 - 80 per cent of the work force in coir industry and majority of them are from rural areas belonging to economically weaker sections of the society (Christy Fernandez, 2003). Thus, companies or COIRFED are adopting a variety of strategies and programmes in order to market their products among consumers in rural areas (Bose et al 2020) and those marketing strategies are different and exclusive for different rural market segments (Raj, 2020) and those are influencing buying behaviour of rural consumers. Therefore, it is important to study marketing strategies for rural areas and buying behaviour of rural consumers of Alappuzha District of COIRFED.

2. REVIEW OF RELATED LITERATURE:

Gopalakrishnan Asari (1984) In his opinion the coir cooperatives should prove themselves to be pivots for trade union activities while performing functions such as increasing the marketing facilities for coir products, purchase and sale of husks and getting the members cheap loans, bonus and subsidies.

Goel (2001) 53, in his paper stressed the necessity of strengthening the domestic market for coir goods. He also explained the reasons why consumers are not attracted towards coir products. The government owned undertakings have failed to generate that awareness and thereby attract consumers. Their showrooms are not well maintained and wear a shabby outlook. They do not have sufficient varieties and designs that are presentable.

Pedhiwal et al (2011) found that advertisements, posters, free, extra quantity, low price, attractive packaging and personal sales were marketing strategies for rural consumers.

Tegwal and Tegwal (2016) concluded that product, pricing, packaging, place and promotion strategies were important marketing strategies for consumers in rural regions.

Jayadatta and Abhinaya (2018) indicated that promotion, communication, price, store operations, quality of products and attractive packaging and offers and discounts were strategies for rural marketing.

Yadav and Raju (2019) found that small size products, low prices, packed products, advertisements, promotion, discounts, offers and free gifts were marketing strategies for fast moving consumer goods in rural areas. Mande (2020) concluded that small sized and packed products, low price, advertisements, discounts, offers and availability of products were marketing strategies for rural consumers.

3. OBJECTIVES OF THE STUDY:

- i) To study opinion of rural consumers about marketing strategies for rural areas of COIRFED in Alappuzha District.
- ii) To find linkage amidst marketing strategies for rural areas and features of rural consumers of Alappuzha District of COIRFED.
- iii) To examine relation amidst marketing strategies for rural areas and buying behaviour of rural consumers of Alappuzha District of COIRFED.

4. HYPOTHESES OF THE STUDY:

There is a positive relation amidst marketing strategies for rural areas and buying behaviour of rural consumers of COIRFED in Alappuzha District.

5. METHODOLOGY

The present study is carried out in Alappuzha District of COIRFED. At present, in Alappuzha District, 8 (eight) COIRFED showrooms are working. Rural consumers are

selected by using convenience sampling method. Data are collected from 50 rural consumers by means of questionnaire via google form. Percentages are used to understand features of rural consumers. Mean and standard deviation are worked out to study opinion of rural consumers about marketing strategies for rural areas. Simple correlation analysis is applied to examine relation amidst marketing strategies for rural areas and buying behaviour of rural consumers.

6. RESULTS:

6.1. Features of Rural Consumers:

Higher than half of them are females (66 percent) and larger than one third of them are falling in age of group of 31 – 40 years (40 percent). Near to two fifth of them are holding secondary education (30 per cent) and near to two fifth of them are coming under monthly income group of less than Rs.15000 (36 per cent) and greater than four fifth of them are married (56 per cent).

6.2 Marketing Strategies for Rural Areas:

The opinion of rural consumers about marketing strategies for rural areas is given in Table-2

Table-2.
Marketing Strategies for Rural Areas

Marketing Strategies for Rural Areas	Mean	Standard Deviation
Advertisement	2.12	1.118
Low price	2.16	1.095
Availability and attractive design	1.76	0.822
Attractive promotion and word of mouth	2.24	1.080
High quality	2.12	1.081
Shop display	1.68	0.794
Festive offer	2.04	0.968
Discounts	2.34	1.154
Annual melas, recommendation from peers	1.64	0.776

The rural consumers agreed with discount, attractive promotion and word of mouth, low price, high quality, advertisement, festive offer, while, they are neutral with availability and attractive design, Shop display and annual melas & recommendation from peers as marketing strategies for rural areas.

6.3. Marketing Strategies for Rural Areas and Features of Rural Consumers:

The linkage amidst marketing strategies for rural areas and features of rural consumers is given as below:

6.3.1. Marketing Strategies for Rural Areas and Gender:

The linkage amidst marketing strategies for rural areas and gender of rural consumers is given in Table-3.

Table-3.
Marketing Strategies for Rural Areas and Gender

Gender	Mean	N	Std. Deviation
Male	16.8824	17	3.33321
Female	15.4545	33	2.98005
Total	15.9400	50	3.14552

Mean value of marketing strategies for rural areas for male and female categories of rural consumers are 16.88 and 15.45 sequentially. This indicates that marketing strategies for rural areas for male category of rural consumers is better as compared to female category.

6.3.2. Marketing Strategies for Rural Areas and Age:

The linkage amidst marketing strategies for rural areas and age of rural consumers is given in Table-4.

Table-4.
Marketing Strategies for Rural Areas and Age

Age (Binned)	Mean	N	Std. Deviation
1	14.4444	9	3.50397
2	15.8750	16	3.48090
3	16.2000	20	2.60768
4	17.8000	5	3.03315
Total	15.9400	50	3.14552

Mean value of marketing strategies for rural areas for rural consumers falling in to age group of below 20 years, 21 – 30 years, 31 – 40 years and above 40 years are 14.44, 15.87, 16.20 and 17.80 sequentially. This indicates that marketing strategies for rural areas for rural consumers falling in to age group of above 40 years is better as compared to others.

6.3.3. Marketing Strategies for Rural Areas and Education:

The linkage amidst marketing strategies for rural areas and education of rural consumers is given in Table-5.

Table-5.
Marketing Strategies for Rural Areas and Education

Education	Mean	N	Std. Deviation
Informal	17.1818	11	3.54452
Secondary	13.9091	11	2.42712
Higher secondary	17.6000	15	2.87352
Undergraduate	14.6923	13	2.25036
Total	15.9400	50	3.14552

Mean value of marketing strategies for rural areas for rural consumers holding education of informal, secondary, higher secondary and under graduation are 17.18, 13.90,

17.60 and 14.69 sequentially. This indicates that marketing strategies for rural areas for rural consumers holding education of higher secondary is better as compared to others.

6.3.4. Marketing Strategies for Rural Areas and Monthly Income:

The linkage amidst marketing strategies for rural areas and monthly income of rural consumers is given in Table-6.

Table-6.
Marketing Strategies for Rural Areas and Monthly Income

Income	Mean	N	Std. Deviation
Less than 15000	16.0556	18	2.97978
15001-20000	16.5714	14	3.81725
20001-25000	15.1111	9	2.02759
more than 25000	15.5556	9	3.50397
Total	15.9400	50	3.14552

Mean value of marketing strategies for rural areas for rural consumers coming under monthly income of less than Rs.15,000, Rs.15,001 – Rs.20,000, Rs.20,001 – Rs.25,000 and more than Rs.25,000 are 16.05, 16.57, 15.11 and 15.55 sequentially. This indicates that marketing strategies for rural areas for rural consumers coming under monthly income of Rs.15000-20000 is better as compared to others.

6.3.5. Marketing Strategies for Rural Areas and Marital Status:

The linkage amidst marketing strategies for rural areas and marital status of rural consumers is given in Table-7

Table-7.
Marketing Strategies for Rural Areas and Marital Status

Marital Status	Mean	N	Std. Deviation
Single	15.1818	22	2.82230
Married	16.5357	28	3.30524
Total	15.9400	50	3.14552

Mean value of marketing strategies for rural areas for rural consumers belonging to single and married status are 15.18 and 16.53 sequentially. This indicates that marketing strategies for rural areas for rural consumers belonging to married is better as compared to single status.

6.4. Relation Amidst Marketing Strategies for Rural Areas and Buying Behaviour of Rural Consumers:

The correlation analysis is carried out to examine relation amidst marketing strategies for rural areas and buying behaviour of rural consumers and the result is given in Table-8.

Table-8.
Relation amidst Marketing Strategies for Rural Areas and Buying Behaviour of Rural Consumers.

		Rural consumers	Buying behaviour
Rural consumers	Pearson Correlation	1	.034
	Sig. (2-tailed)		.816
	N	50	50
Buying behaviour	Pearson Correlation	.034	1
	Sig. (2-tailed)	.816	
	N	50	50

The correlation coefficient relation amidst marketing strategies for rural areas and buying behaviour of rural consumers is .034; thus, they are moderately and positively related among them.

7.CONCLUSION:

The results of this study are explicating that rural consumers are agreed with discount, attractive promotion and word of mouth, low price, high quality, advertisement, festive offer, while, they are neutral with availability and attractive design, Shop display and annual melas & recommendation from peers as marketing strategies for rural areas. Marketing strategies for rural areas has a positive, moderate and significant relation with buying behaviour of rural consumers. Thus, in order to improve buying behaviour of consumers, COIRFED should provide quality of products at low price to rural consumers and shops must display all type of products with features to attract rural consumers to enhance their buying behaviour.

REFERENCES:

- Ananda Kumar, A. (2016). Factors influencing customers buying behaviour. *Global Journal of Management and Business Research: E-Marketing*, 16(3), 31-35.
- Arshad Ayyub, & Laddha. (2012). Marketing to rural India: A changing paradigm. *International Journal of Management Research and Review*, 2(1), 154-163.
- Christy Fernandez, IAS, Former Chairman, Coir Board, Proceedings of the Int.Coconut Summit 2003, Kochi
- Dibakar Bose, Saikat Kumar Kar, & Kaushik Banerjee. (2020). Emerging trends in rural marketing. *Global Journal of Management and Business Research: E Marketing*, 20(2), 27-29.
- Jayadatta, S., & Abhinaya, H. (2018). Recent trends, changing future, marketing strategies of rural marketing in India. *International Journal of Scientific Research and Review*, 7(3), 530-543. *European Journal of Molecular & Clinical Medicine* ISSN 2515-8260 Volume 7, Issue 08, 2020 5966
- Molly Chaturvedi. (2017). A study on challenges and opportunities of rural marketing. *International Journal of Current Research*, 9(11), 61682-61686.
- Pandi S.J., "Problems and Challenges of Industrial Co-operatives with Special Reference to Coir Co-operative Units in Tamil Nadu", *Indian Co-operative Review*, Vol.42, No. 3, January 2005.
- Pedhiwal, G.L. Pankaj Arora, Vyas, J. H. (2011). Changing rural market and role of marketers. *International Referred Research Journal*, 2(19), 28-30.

- Rahul Mande. (2020). Rural marketing in India: Opportunities, challenges, key decision areas and marketing strategies. *International Journal of Creative Research Thoughts*, 8(12), 3215-3230.
- Raj, N. (2020). Rural marketing and associated aspects in Indian perspectives. *Our Heritage*, 68(1), 855-865.
- Ramesh, S., &Kalaivani, S. (2015). Strategies of FMCG into rural marketing in India. *International Journal of Scientific & Engineering Research*, 6(4), 553-563.
- Rithvikaa, K., &AnithaRamachander. (2017). Rural and urban consumer buying behaviour with special reference to durable goods: A literature survey. *Srusti Management Review*, 10(2), 64-69.
- Roshni Narendran. (2014). Evaluation Of National and Industry-Specific Interventions On Coir Industry In India – A Special Reference To Keral. *International Business & Economics Research Journal – July/August 2014*. Volume 13, Number 4,2014, pp727- 738, <https://clutejournals.com/index.php/IBER/article/view/8681>.
- Shailendra Yadav, & Neelam Raju. (2019). Rural marketing recent trends and strategies of fastmoving consumer goods. *JAC: A Journal of Composition Theory*, 12(12), 353-359.
- Suchi K Patel. (2013). The challenges and strategies of marketing in rural India. *Asia Pacific Journal of Marketing & Management Review*, 2(7), 38-43.
- Usha Patel. (2014). Rural Marketing: A new avatar of marketing and the key driver for Indian economy. *International Journal of Scientific Research*, 3(8), 216-218
- Vasavada, J. K. (2014). A Study on rural market in India: Opportunities and challenges. *PARIPEX - Indian Journal of Research*, 3(3), 72-73.
- VijeyataTegwal, & Sunil Tegwal. (2016). Marketing strategies for rural Indian markets. *International Journal of Advance Research in Science and Engineering*, 5(3), 457-462.

A STUDY OF CONSUMER BEHAVIOUR TOWARDS ORGANIC FOOD PRODUCTS IN LATUR CITY

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Abstract:

In recent years, the awareness of people on health has increased tremendously. Due to this awareness, organic food has become main issues in consumer food market. The food consumers become careful about food safety, quality and nutrition. The organic food provides a choice of 'healthy life' to consumers by providing healthy food. It gives assurance that toxic persistent pesticides, synthetic fertilizers or genetically modified organisms (GMOs) are not used in production; it also means that stringent organic cultivation standards have been met with respect to impact on soil, water and air support environmental protection. In consumer food market food safety, quality and nutrition are increasingly becoming important. As we know that food is the basic necessity in the life of human beings. The humans are spending their most of the income on the food, due to this they are becoming conscious and selective about the food they eat. The food consumption patterns of consumers are changing continuously. The people are becoming conscious about environmental issues, health consciousness and nutritional value of food, this is the main reason that the consumers attracted towards organic food in the consumer food market.

Key words: *Consumer behavioru, Organic food, Maharashtra, India*

Introduction:

The organic food products (OFP) means the food raised, grown and stored or processed without the use of synthetically produced chemical or fertilizers, herbicides, pesticides, fungicides, growth hormones and regulators, in simple word, The OFP is referred as a product of organic farming or agriculture. The growing concern about health and environmental issues acts positively on the consumer demand for the organic food. Worldwide the Organic Food Market (OFM) has been gradually moving from a niche market to the mainstream market as far as agricultural marketing is concerned. The OFM is emerged as one of the fastest growing segments of the food marketing.

According to organic monitor the global sales of organic food reached at \$ 89.7 billion in year 2016. The total area of 57.8 million ha of land was under organic agriculture worldwide during the same period (see Table 2 and 3) the global demand for organic food products are showing a rapid growth rate.

Table 2: Global organic market growth

Sr. no.	Year	Annual Sales (\$ billion)
1	2011	59.4
2	2012	65
3	2013	71.5
4	2014	79
5	2015	88.1
6	2016	90

Source: The world of organic agriculture statistics and emerging trend, FIBL and IFOAM – organics international

Organic Food Market of India:

India currently holds the ninth position among 178 countries that actively practice organic agriculture. At present, the country is home to more than 835000 organic producers, 699 processors, 669 exporters and 1.49 million ha area under organic cultivation. (See Table 4) The India has a total land of 143 million hectares, out of which only 5.7 million hectares (3.6 percent) of land is under organic certification. The agricultural sector in India is characterized by a large proportion of households (85 percent) possessing less than 2 ha of land. Only 36 percent of India's land use irrigation system, while the rest is rain fed. (Directorate of Economics and statistics 2012-13). The rain fed area presents many opportunities to improve the socio-economic status of the farmers by adopting organic farming methods. The Govt of India and various state governments are working to increase the area under organic agriculture. This results in increase in area under organic farming.

Table 4: Organic area in India (in million ha)

Sr no.	Year	Cultivated area (Million ha)	Wild forest area (Million ha)	Total organic area (Million ha)
1	2010-11	0.78	3.65	4.43
2	2011-12	1.00	4.55	5.55
3	2012-13	0.72	4.00	4.72
4	2013-14	1.20	3.70	4.90
5	2014-15	1.49	4.22	5.71

Source: APEDA, 2015

Table 5: - State wise area under organic agriculture in ha 2014-15

Sr. no	State	Organic area in (ha)
1	Madhya Pradesh	4.62 lakh
2	Maharashtra	1.98 lakh
3	Rajasthan	1.55 lakh
4	Telangana	1.04 lakh
5	Odisha	0.96 lakh
6	Karnataka	0.94 lakh
7	Gujarat	0.77 lakh
8	Sikkim	0.76 lakh

Source: APEDA, 2015

The organic food industry in India is in the early stages of growth. Organic food is still a niche concept in India. The current domestic organic food sales are estimated at around INR 4000 cr in 2016-17 and it is growing at a compounded rate of 25 percent each year. The one fact is interesting about organic food in India is that; the organic food consumption is not even 0.1 percent of India's \$ 300 billion annual food consumption. The India's share in the \$ 100 billion global organic food market is less than 0.2 percent.

The Indian players like ITC, Cargill, Big Basket, Godrej, Nature fresh, Organic India etc are also attempting to capitalize on the growth spurt of organic food industry. The established players in the organic food market segment are optimistic about their growth, for instance, organic India aims at achieving a turnover of INR 500 cr by 2020.

The various study on organic food market reported that, the full potential of the domestic market has not been realized to date. This is due to a number of challenges including product availability, supply chain constraints and consumer awareness and also the challenges which are faced by the stakeholders in the domestic market. Lack of awareness on

part of consumer's is another barrier that needs to be addressed on demand side in order to sustain the growth in organic sales.

The aim of this research is to study the consumers buying behaviour with reference to organic food products. This study helps to contribute to identify the factors influencing the consumer behaviour and their intention to buy the organic food products. This study will be helpful in taking marketing decisions in the consumer market for organically produced food products.

LITERATURE REVIEW:

In recent years, the demand for environmentally friendly products such as organic foods have significantly increased due to increasing awareness on health, food safety and environmental concerns (Loureiro et al, 2001, Nair 2005, Briz and ward, 2009). Awareness and knowledge have become critical factors in changing the attitude & behaviour of consumers towards organic foods, which in turn is expected to drive the growth in the organic food markets. (Solar et al, 2008; Freeland-Graves & Nitzke, 2002).

The consumers have positive attitudes towards the organic products and perceived as healthier than conventional alternatives (Chinnici et al; 2002, Harper & Macaroni, 2002).

In India, market size for organic foods remained low due to both supply side and demand side constraints (O' Donovan and Mccarthy, 2002; Hill & Lynchehaun, 2002; Magusoon et al, 2001)

The use of organic food is ultimately and easily affected by the demographic variables of the consumers in Maharashtra State (Abhayjoshi & Koichi Hioki et al; 2012)

The one of the studies said that, socio-cultural factors significantly impact the consumer's habits with reference to organic foods. It is becoming more important to study because of its pervasive influence on consumer behaviour (Pirabatti 2011)

It has been empirically investigated that Socio-demographic profiles are most likely to affect the purchase decisions of organic foods (Gracia & Magistris; 2007; Tsakiridou et al, 2006, Lockie et al 2004.)

The majority of researches on organic food products were carried out in developed countries. It is the need of time to conduct a research study on the organic food products and its marketing in the developing country like India. This study may help both consumer of organic interest, farmers and marketers of organic food products. It may also help government to design strategies for organic food products marketing.

RESEARCH METHODOLOGY:

It involves visualizing the frame work for the study to be conducted.

Objectives of the study:

- 1) To review the concept of organic food market in India.
- 2) To study the demographic factors influencing consumer behaviour towards organic food.
- 3) To find out the awareness level and consumption pattern for organic food in the people of Latur city.
- 4) To study the perception and attitudes of consumer towards organic food in Latur city.

Research Design:

The research is descriptive and exploratory in nature because the primary data will be collected using the survey method through fact finding techniques such as questionnaire and interview. The main purpose of this research is to obtain information concerning the buying behaviour of the consumers of organic food products. Descriptive research involves hypothesis formulation and testing.

Data collection:

Primary Data:

The data is collected by using structured questionnaire and interview techniques from consumers who has visited the specialty and traditional food shops.

Secondary Data:

For secondary data books, journals, magazines, various websites etc is used.

Sample Design: - Sampling Unit: - The consumer who have used or purchased organic food products at any single time in past six months will be considered as the sampling unit for this study.

Sample size:

The sample size selected was 100 for this research study.

Sampling Method:

The Simple Random sample method was adopted in research.

Hypotheses:

The following hypotheses were framed for the present study.

H₀₁: - There is no relationship between gender and purchase frequency of organic food.

H₁: - There is relationship between gender and purchase frequency of organic food.

H₀₂: - There is no significant difference between education and purchase frequency of organic food.

H₂: - There is significant difference between education and purchase frequency of organic food.

DATA ANALYSIS AND INTERPRETATION:

In this research, a total of 100 questionnaires were collected. A detail description of respondent's demographic profile is shown as follows.

1) Consumers interest and awareness towards consumption of organic food:

Respondent were asked about consumption of organic food to find out their awareness levels. As if consumer is aware about food then he prefers to consume it.

Table 4.1
Awareness levels of respondent

Sr No.		No of Respondents	Percent	Valid Percent
1	Yes	59	59.0	59.0
2	No	41	41.0	41.0
	Total	100	100.0	100.0

The result clearly show that the 59% respondents have purchased and eaten organic food during past. This indicates that 59% of respondents are aware about organic food, while 41% respondents are unknown about the organic food.

2) Organic food purchase frequency:

Table 4.2
Organic food purchase frequency of respondent

Sr No.	Organic food purchase frequency	No of Respondents	Percent
1	At least once/month	2	2.0
2	Once half a year	10	10.0

3	Seldom	47	47.0
4	Never	41	41.0
5	Total	100	100.0

The result about the frequency of purchasing of organic food indicates that 46% respondents are seldom consumer; it means these are not regular consumer of organic food. The only 2% are consuming at least once / month.

3) Type of organic food purchased for consumption:

Table 4.3

Type of organic food purchased for consumption

Sr No.	Type of organic food	No of Respondents	Percent	Valid Percent
1	Organic vegetables	19	19.0	32.2
2	organic fruit	38	38.0	64.4
3	Processed organic food	01	01.0	1.7
4	Organic food grain	01	01.0	1.7
5	Total	59	59.0	100
6	Never	41	41.0	
	Total	100	100.0	

The result indicates that the 64.2% respondents purchased organic fruit, while 32.2% preferred organic vegetables. These results are generally consistent with other similar studies.

FINDINGS:

The findings of the study are as follows:

- 1) The majority of the respondent (59%) has awareness about organic food and they had consumed some times in the past.
- 2) The study reveals that the majority of the respondents of Latur city have positive attitude towards organic food.
- 3) The health consciousness, food safety and environmental concerns are the main motives of consumers for buying organic food. It is consistent with results of previous similar studies.
- 4) The 94% respondents have the knowledge of organic farming practices.
- 5) The majority of consumers are consuming the two organic foods mostly are fruits (64.2%) and vegetables (32.2%). This result is consistent with previous similar studies.
- 6) The one of the interesting findings of this study is that, the majority of the respondents have a positive attitude towards organic food; instead of that over 46% respondents have said they seldom consume organic food.
- 7) The commercial organic food industry is new to the Indian food market. It is still a niche segment from food marketing point of view.
- 8) The majority of the consumers are non-regular user of organic food in Latur city. The main reasons for this are irregular availability of organic food products in the Latur market.
- 9) The varieties of organic food products available in the market are limited.

- 10) In the consumers opinion the organic food products are necessary for maintaining good health (98%), the quality of food (62%) and good tastes (34%).

Suggestions: -

The following are the suggestion made based on the result of the study.

- 1) There is need to create awareness of organic food products, its production knowledge among general food consumers.
- 2) There is needed to make improvement in the organic product features, which lead to increase in consumption of organic food.
- 3) There is needed to make an extensive availability of organic food in the Latur city by organizing the Krishi melas, raytu bazaar etc.
- 4) There is need to make arrangement of regular supply of organic food in the market and it also needs a wider advertisement in local media.
- 5) There is need to arrange consumer education programme to convert the non-buyers to buyers of organic products.

Conclusion: -

This study provides an insight regarding the organic food marketing, that the consumer behaviour plays a major role in it. The study reveals that the consumption of organic food depends upon the attitudes and behaviour of consumer towards the organic food. The markets of organic food products need to be innovative and practical in order to match his offerings according to continuous changing consumer behaviour.

This study also revealed that, a positive relationship among the organic food consumption frequency and four aspects are established namely attitude, health consciousness, environmental concerns and organic food knowledge.

There is a growing demand for organically produced food in all over world market particularly in developed countries market, whereas in India the demand for organic food is growing in metro cities only.

The Indian consumers are specifically demanded organic fruits and vegetables. They are willing to pay price premium maximum up to 25% for any organic product. From this study it is clear that, consumer's willingness to purchase is influenced by limited and irregular supply, excessive price and very limited availability of organic food products in the market.

REFERENCES:

- Aertsens J. Mondelaers, K, verbeke, W. Buysse, J. and Var Huylen broeck G (2011) "The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food". British food journal, 113 (11) 1353-1978.
- Aryal K.P., Chaudhary P; pandit S., Sharma G. (2009) "consumers' willingness to pay for organic products: A case from Kathmandu valley" Journal of Agriculture and Environment 10, 12-22.
- Anil kumar pant, Kaushal Kumar and G.C.Mishra (2013); "Statistical Review: Worldwide use of organic farming practices", Popular Kheti Vol-1 (4) 15-18.
- Dr. Sangeetha Natarajan (2015), "Evaluation of the Perception and Buying Behaviour of the consumers towards organic food in India," Journal of Exclusive Management Science, Vol 4 (11) 1-12.
- Sushil Kumar and Jabir Ali (2011); "Analyzing the Factors Affecting consumer Awareness on organic foods in India," 21st Annual IFAMA world Forum and Symposium on the Road, to 2050. Frankfurt, Germany, June 20-23, 2011.
- HAV, 2003 "Emerging challenge to Haryana's Agricultural Economy Vis-à-vis Diversification in agriculture" CCS Haryana Agricultural University. P.P.52.

- P. Ramesh, N.R. Panwar 2010, "Status of organic farming in India," Current science. Vol 98 (9)
- Mithilesh Verma, V.K. verma; 213 "Consumers opinion about organic food products; World Journal of Agricultural sciences vol 9 (6)
- Chandrashekar H.M. 2014; Consumers perception Towards organic products A Study in my sore city; International Journal of Research in Business studies and management Vol (1) p.p. 52-67
- Balaji v. and Bhana T. 2012 Consumer perception Towards organic food Products in India proceedings of the International conference on Business Management and Information system, 2012 pp 303-307.
- Raghavan, N and Mageh R (2013) A study on Consumer's purchase intentions towards organic products. Indian Journal of Research, vol 2 (1), pp 111-114.
- Chakrabarti,s (2010) Factors influencing organic food purchase in India – expent survey insights British food journal, v10 122 (8)pp 902-915
- Chakrabanti,s ; Baisya, R.K. (2007), "purchase motivations and attitudes of rganic food buyers" Decision vol 34 (1) pp1-22
- www.yesbank.in
- www.apeda.gov.in
- www.agricoop.nic.in
- <https://en.wikipedia.org>.
- www.commerce.nic.in
- www.fao.org.
- www.organicmonitor.com
- www.latur.nic.in

AN ANALYSIS OF USER SATISFACTION OF ELECTRIC VEHICLES IN KERALA

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Abstract

Transport is an essential part of modern life, but the traditional combustion engine is rapidly becoming obsolete. Vehicles that run on gasoline or diesel emit a lot of pollution and are being rapidly phased out in favour of fully electric vehicles. EVs produce no tailpipe emissions and are thus significantly better for the environment. Since electric vehicles have few moving parts their low operating cost is low, and they use little or no fossil fuels so they are also very environmental friendly. Some of the popular factors which make people to choose Electric vehicles (EVs) over fossil fuel vehicles are price reductions, climate and environmental concerns.

This study attempts to analyse user satisfaction of electric vehicles in Kerala. It also aims to understand the challenges faced by the electric vehicle users. It also recommends the possible solutions for the challenges faced. This research uses questionnaire method to collect data from the electric vehicle users selected through purposive sampling method. The results of the study will provide insights for electric vehicle manufacturers and dealers to frame strategies for enhancing customer satisfaction as well as to augment market diffusion of electric vehicles.

Keywords: *electric vehicles, user satisfaction, market penetration, diffusion, environmental concern*

Introduction

India is one of the countries with largest road network in the world. In the past few years India's automobile users are rapidly increasing. Most of the users prefer fossil fuel vehicles but it is also a major cause of global warming and environmental air pollution. When compared with fossil fuel vehicles, electric vehicles do not emit any greenhouse gases. Governments are implementing policies to promote the usage of EV's so that dependence on fossil fuel will be reduced, which will lead to decrease in air pollution.

In Kerala there is an increase in number of electric vehicle users. The number of registered EV's in 2017 was 75 and now in 2022 it is 31000 and counting. The state government is planning to ensure robust infrastructure for Electric vehicles such as providing sufficient power supply, network of charging stations and favourable power tariffs. People started adopting Electric vehicles due to subsidies provided by the government.

This paper attempts to analyse user satisfaction of electric vehicles in Kerala. This paper also aims to understand the challenges faced by the electric vehicle users.

Literature Review

Liao, Molin & Wee (2017) stated that the number of charging units also has a favourable effect on the utility of EV's, demonstrating the importance of infrastructural development of the charging units for the promotion of EV's. Short driving range of EV's is a major barrier to their widespread use. The maximum driving range of the battery is the most common operationalization (Liao, Molin & Wee, 2017).

Singh (2020) stated that one of the most important factor that influence the purchase of electric vehicle is its low maintenance cost as compared to fossil fuel vehicles. Liao, Molin& Wee (2017) also stated that the government has relaxed policies for promoting adoption of electric vehicles. Sangesaet. al. (2021) stated that batteries for EVs are important because they determine the autonomy of the vehicle.Higher capacity batteries will also favour the use of the fast charging modes, development of universal connector.Mishraet. al.(2021) stated that the development of EVs and their charging infrastructure is being heavily influenced by the rapidly depleting fossil fuels and growing environmental concerns.According to the current study, recent research trends are more focused on the development of new and quick EV charging infrastructure that can reduce EV charging times, increasing the use of available renewable energies for EV charging, and determining the best locations for EV charging.Tupe, Kishore andJohnvieira (2020) The respondents are prepared to switch from conventional to eco-friendly vehicles because they are aware of the state of the world's climate. Cost must be taken into consideration when buying an EV. Respondents are willing to consider EVs as a potential future purchase if the necessary infrastructure is in place. The initial purchase price, a scarcity of charging stations, and the time required to recharge the battery are all impeding efforts to boost consumer confidence.

Hypotheses

H1: There is significant impact of charginginfrastructure, battery, maintenance costs and government policy on customer satisfaction of electric vehicles

H2: There is significant difference in customer satisfaction of electric vehicles based on the age of customers.

H3: There is significant difference in the customer satisfaction of electric vehicles based on income levels.

H4: There is significant difference in the customer satisfaction of electric vehicles among male and female customers

Research Methodology

The population selected for the purpose of the study is the electric vehicles users in Kerala. For the purpose of the study data were collected from both primary and secondary sources. All the primary data were collected through questionnaire method. Purposive sampling method was used for data collection. It includes perceptual measures that were rated on a five point Likert scale. Minimum sample needed for the study was 95 (ie, 5 times the number of items). Hence data was collected from a total of 124 respondents for the study, which was drawn from different electric vehicle users in Kerala. Secondary data were collected from publication manuals, academic journals, and government publications. For data analysis multiple regression, ANOVA and independent sample t- test was used.

Analysis & Discussion

Table 1: Demographic Profile

CATEGORY	FREQUENCY	PERCENTAGE
Age Group		
20-30	39	31.5
31-40	48	38.7
41-50	27	21.8
51 and Above	10	8.1

Gender		
Male	75	60.5
Female	49	39.5
Income		
Less than 1 lakh	39	31.5
1,00,001-5 lakh	36	9
5,00,001- 10 lakh	43	34.7
More than 10 lakh	6	4.8
Educational Qualification		
Graduation and below	38	30.6
Post Graduate	53	42.7
Professional graduates	23	18.5
Others	10	8.1

Source: Primary Data

H0: There is no significant impact of charging infrastructure, battery, maintenance costs and government policy on customer satisfaction of electric vehicles.

H1: There is significant impact of charging infrastructure, battery, maintenance costs and government policy on customer satisfaction of electric vehicles.

Table 2: Multiple Regression

R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
.633 ^a	.401	.381	.51442	19.940	.000 ^b

b. Predictors: (Constant), GP, CI, MC, BATTERY

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.819	.354		2.315	.022
CI	.389	.107	.302	3.642	.000
BATTERY	.196	.095	.207	2.079	.040
MC	.161	.118	.125	1.364	.017
GP	.136	.072	.172	1.899	.034

a. Dependent Variable: CS

From the results of regression analysis (Table 2) performed between the relationship of customer satisfaction of electric vehicles, charging infrastructure, battery, maintenance and government policy, it is observed that R value is 0.633 and R square value is 0.401. This means that 40% of the variation in the dependent variable, ie, customer satisfaction of electric vehicles is explained by the independent variables, viz, charging infrastructure, battery, maintenance and government policy.

The ANOVA shows that the significance value is less than 0.05, so the study rejects null hypothesis and accept alternate hypothesis. Hence it can be concluded that charging infrastructure, battery, maintenance and government policies significantly impact the customers satisfaction of electric vehicles in Kerala. The regression is as follows:

$$\text{Customer satisfaction} = 0.819 + 0.389 * \text{charging infrastructure} + 0.196 * \text{battery} + 0.161 * \text{maintenance cost} + 0.136 * \text{government policy}$$

H0: There is no significant difference in customer satisfaction of electric vehicles based on age of customers.

H1: There is significant difference in customer satisfaction of electric vehicles based on age of customers.

Table 3: ANOVA- Age & Customer Satisfaction

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.339	3	1.446	3.597	.016
Within Groups	48.258	120	.402		
Total	52.597	123			

From the results of the ANOVA given in Table, it can be seen that the computed p-value is less than the significance level. So the study rejects the null hypothesis (H0). Hence it can be concluded that there is a significant difference in customer satisfaction of electric vehicles based on age of customers.

H0: There is no significant difference in customer satisfaction of electric vehicles based on gender of customers.

H1: There is significant difference in customer satisfaction of electric vehicles based on gender of customers.

Table 4: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal CS variances assumed	2.637	.107	-.194	122	.846	-.02340	.12059	-.26212	.21532

References

- Fanchao Liao, Eric Molin & Bert van Wee (2017) Consumer preferences for electric vehicles: a literature review, *Transport Reviews*, 37:3, 252-275, DOI:10.1080/01441647.2016.1230794
- Julio A Sanguesa, J.A.; Torres-Sanz, V.; Garrido, P.; Martinez, F.J.; Marquez-Barja, J.M (2021) A Review on Electric Vehicles: Technologies and Challenges. *Smart Cities* 2021, 4, 372–404. <https://doi.org/10.3390/smartcities4010022>
- Mishra, S.; Verma, S.; Chowdhury, S.; Gaur, A.; Mohapatra, S.; Dwivedi, G.; Verma, P. (2021) A Comprehensive Review on Developments in Electric Vehicle Charging Station Infrastructure and Present Scenario of India. *Sustainability* 2021, 13, 2396. <https://doi.org/10.3390/su13042396>
- OmkarTupe, Shweta Kishore, ArlophJohnvieira (2020) Consumer Perception of Electric Vehicles in India *European Journal of Molecular & Clinical Medicine* ISSN2515-8260 Volume 7, Issue 8, 2020
- Sandeep Singh(2020) Study and Analysis of various factors Influencing the Purchase of Electric car, Volume – 10, Issue – 12, PRINT ISSN No. 2249 - 555X, DOI:10.36106/ijar
- Jun Ma, Tianjiao Li , Zaiyan Gong (2017) Study on customer satisfaction of electric vehicle product quality characteristic, *Advances in Engineering Research*, volume 128, ICMSE 2017
- Lingzhi Jin, Peter Slowik(2017) Literature review of electric vehicle consumer awareness and outreach activities, *ICCT Working paper* 2017-03

SOCIAL MARKETING STRATEGIES ADOPTED BY KERALA TO REDUCE THE SPREAD OF THE PANDEMIC

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Abstract: While more than half of the world population was coarsely hit by the covid 19 challenge, stringent containment measures were introduced globally to resist the impact of covid- 19 issues. The same covid 19 virus and its variants infected the globe in the first, second and third waves, the different nations and political regimes responded to the disaster in different manners and resulted in different outcomes. The government of Kerala has adopted a wide range of measures to safeguard public lives and health. In the context of radical uncertainty posed by the socio-economic, and health challenges, the government educated, communicated, influence and motivate the public to accept a new, unheard pattern of life style. Social marketing is a process to bringing about behavioural change among individuals by identifying and eliminating the barriers to behavior change in the target audience. This paper highlights the social marketing initiatives adopted by Kerala to reduce the impact of the covid-19 crisis.

Keywords : *Social marketing mix strategies, behavior change, target audience*

Introduction

Covid 19- the epidemic which originated in the city of Wuhan in China, during 2019 December, struck the whole world coarsely. While the devastated world is on the path of regaining its momentum, the dreadful virus is still creating its impact in the form of different variants and claiming the lives of lakhs of people in different parts of the world. When met with unprecedented crises, different nations reacted with different strategies and resulting in different outcomes. When China reported the first death due to the corona virus on January 11, 2020, the first domestic case in India was reported in Kerala on January 30, 2020. India witnessed that the number of positive cases completed a century in the next three months and again quadrupled in the next 10 days. Kerala, which is a small, densely populated state with a highly mobile population, was severely hit by the pandemic. The first, second and third waves of the epidemic with the 11 variants of coronavirus is still posing challenges to all walks of life. The different variants of the virus- Kerala Alpha variant (B. 1.1), Beta variant (B.1.351), Gamma variant (P.1), Delta variant (B.1.617.2), Delta plus AY.1 (B.1.617.2 +K147N), Omicron, Omicron BA.5, Omicron XE, XH, HQ have been reported in Kerala and so far, 66.66 lakhs positive cases have been identified. The death toll has reached 70,122. The impact of the dreadful epidemic can be controlled only by adopting strict control measures. The triple lockdown was imposed and massive testing and contact tracing and community mobilization were adopted. This helped to control the mortality rate. Moreover, effective social marketing strategies were adopted to tackle the major challenge of influencing people to adopt an unheard pattern of living.

Statement of the problem The rapid global spread of the dreadful corona virus, claimed the lives of lakhs of people in Kerala. With its highly mobile population, Kerala had to struggle very much to overcome the unprecedented challenges posed by the pandemic. To initiate a change first and foremost, the state had to influence the behavior of society to accept a new behavior pattern, and the government adopted social marketing initiatives to influence the behaviour pattern of society.

Objectives

.To study the social marketing strategies adopted by Kerala to reduce the spread of the pandemic by influencing society to accept a new pattern of behaviour.

.To identify the effect of the social marketing strategies adopted by Kerala to nullify the effect of the Covid 19 epidemic

Methodology

This is an exploratory study, based on secondary data from e-journals, textbooks, research reports. Data was collected from publications also.

Social marketing initiatives for reducing the effect of the pandemic

Social marketing is the process of influencing human behavior, for the benefit of the target audience and to improve the quality of life for individuals, groups and society.

Even though not labeled so, the social marketing initiatives put forward by Kerala, has decreased the spread of Covid -19 to a greater extent. This study reviews the strategies adopted in the social marketing mix –product, price, place, promotion, policy, purse strings and partnerships to influence human behavior for reducing the spread of the corona virus. During the outbreak of the first wave of covid the strategy of the government was to ‘delay the curve’ and later the strategy was to ‘flatten the curve’. Through effective social marketing initiatives, policies and strategies Kerala was able to reduce the impact of the pandemic.

The benchmarks of Social marketing are

- a. Behaviour change- behavior change of individuals is focused on attaining specific behavior goals. Eg- Individuals were made to strictly maintain social distancing, wash hands intermittently, use masks and sanitizers and consume protein rich food and boost immunity. If infected by virus, they were asked to get isolated and remain in quarantine.
- b. Consumer research- The consumer values and interests were studied.
- c. Segmentation and Targeting- The vulnerable segments such as the homeless, adults over 60, people with serious diseases, people below the poverty-line etc were identified and targeted.
- d. Exchange- ‘Break the Chain ‘campaign was promoted among the individuals. The needy were provided food packets. Around 2.8 lakhs of food packets were distributed on a daily basis.
- e. Competition-The internal (psychological factors, pleasure, risk- taking) and external forces that act as barriers to accepting the behavioural change were studied and strategies were adopted to mitigate the barriers
- f. Social Marketing mix- elements such as product, price, place, promotion, partnership,ing and pursestrings were identified.

Social Marketing mix elements

- a. Product strategies- Individuals were influenced to use sanitizer, hand wash, masks, face shields, gloves, test kits, plexiglass shields in shops and vehicles, single-use pens, oximeters, and wristbands.
Many voluntary organisations provided free food. Universities and educational institutions introduced online teaching and offices arranged work from home facilities.
- b. Price strategies- Price is the payment made for promoting the desired behavior or the fine for discouraging an undesired behavior which acts as a barrier to influencing human behavior.
Fines were introduced for not wearing masks and violating the norms of physical distancing, such as conducting functions like marital or religious functions.
Employees received paid holidays and sick holidays.

Health workers and kudumbashree units and received non-monetary incentives.

- c. Place strategies- People in public places and vehicles were reduced. In stores, 6 feet distance was marked. Educational institutions and non-essential businesses were closed.
Restaurants offered only parcel services. Playgrounds, parks and gyms were closed. Business units placed items outside the door for pickup. Moreover, services such as local call centers, quarantine locations at stadiums and educational institutions and hostels, and testing centers were introduced. Hospitals were converted to covid special centers
- d. Positioning strategies- The campaign 'Break the Chain' was introduced. Face covering clothes were positioned as masks. The health workers and individuals were influenced to fight the virus without fear.
- e. Promotion strategies- The vibrant media was effectively used to communicate the latest facts, figures, plans, concerns, challenges, and cautions. Daily evening press briefings led by the chief minister and team were aired through television channels. The health workers were motivated by engaging in deeper conversations about treatment options based on empathy for the patients. Free wifi access was provided to the quarantined patients
- f. Partnership strategies- The state government, local government, institutions, kudumbashree units, accredited social health activists, health inspectors, the health sector, the police department other voluntary organisations and the media acted timely in synergy with the society and effectively handled the crisis.
The infected were isolated, tested and traced. Geofencing was adopted towards the infected. The Kerala police launched Project 'Eagle eye' which used drones to monitor those who violated physical distancing and lockdown norms.
- g. Purse string strategies- The state government, central government, business groups and other voluntary organisations made financial contributions for meeting the expenses for fighting the epidemic.

Conclusion:

Kerala was coarsely hit by the unprecedented epidemic during the first wave (30th January 2020 to February 20), second wave (8th March 2020 to 4th May) and the third wave which began on 13th May 2020. By adopting immediate and proactive social marketing initiatives, Kerala was able to reduce the spread of the pandemic and was lauded across the world. The Kerala model in the efforts towards overcoming the challenges due to the pandemic was appreciated by the world.

References

- Kennedy, A. (2010). Using Community-Based Social Marketing Techniques to Enhance Environmental Regulation. *Sustainability*, Vol. 2(4). 94-105.
- Anandan, S. (2020, July 26). Why have COVID-19 cases surged in Kerala? The Hindu. Retrieved from <https://www.thehindu.com/news/national/kerala/the-hindu-explains-why-have-covid-19-cases-surged-in-kerala/article32192847.ece>.
- Babu, R. (2020, July 29). 105-year-old woman in Kerala beats Covid-19 in nine days. Hindustan Times. Retrieved from <https://www.hindustantimes.com/india-news/105-year-old-woman-in-kerala-beats-covid-19-in-nine-days/story-9vkjWy86FxlyrYlvyl11GI.html>.
- Expats upset as Kerala insists Covid-free certificate for chartered flights; Hindustan Times: 2020. June 13 Retrieved from <https://www.hindustantimes.com/kerala/expats-upset-as-kerala-insists-covid-free-certificate-for-chartered-flights/story-71fRWQ9>. [Google Scholar]
- Reducing the Spread of COVID-19: A Social Marketing Perspective , Nancy R. Lee MBA

EFFECT OF VISUAL MERCHANDISING ON IMPULSE BUYING BEHAVIOR AMONG CUSTOMERS OF ORGANIZED RETAILERS

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ABSTRACT

Organized retailers are trying different ways and means to attract customers and increase sales amidst intense competition. Retail store atmospheric elements and its components are very vital in retail sector and making differentiation is a challenge for them. Hence, visual merchandising has become important for differentiation and to attract consumers in organized retail sector. Lighting, color and window display are different elements that have direct effects on consumer's impulse buying behavior in retail stores. The visual merchandising is an activity which promotes sale of merchandise particularly by its presentation in an outlet. Visual merchandising includes everything that a consumer sees (interior and the exterior factors), creates optimistic picture of a product in the mind of a consumer and creates desire, attention, interest, and finally action on consumer's part. Therefore, store atmosphere which includes light, music, color, and display plays a very critical role to enhance the consumer's shopping experience.

Impulse buying is a quick, powerful and a complex purchase behavior of consumer. It is a constant feature of consumer's behavior and a vital factor for attracting customers. Every retailer wants that their outlets should be striking enough to attract the consumers and offer those products that are demanded by the customers and motivate them to make impulsive purchase. It is in this backdrop a study was conducted to identify the relationship between visual merchandising and impulse buying behavior among consumers of organized retailers. Factors such as visual merchandising like window display, store layout, lighting, promotional signage and brand name were considered as part of visual merchandising. Fifty customers of organized retailers such as Reliance fresh, More, Big Bazar and Reliance trends were included in the study. It was found that visual merchandising has significant effect in impulse buying behavior. Findings also indicate that Visual merchandising has turned out to be an essential factor to attract consumers and to increase sales.

Keywords: *Visual merchandising, Impulse buying behavior, organized retailers.*

INTRODUCTION

Visual merchandising is presenting or displaying products in a way that makes them visually appealing and desirable. In today's competitive environment store ambience and visual merchandising play a vital role in attracting and motivating customers. Customers often base their first impressions on what they see. This is why visual merchandising can play a crucial role in enhancing the appeal, atmosphere and better customer experience inside a retail store. Mc Goldrick (2002) stated four important factors of store atmosphere as: Visual (sight), aural (sound), olfactory (smell) and tactile (touch), which are significant in customer's choice of products. Mills (1995) suggest that "visual merchandising ranges from windows/exterior displays to interior displays including form displays and floor merchandising along with promotion signage." Diamond and Diamond (2003) state that visual merchandising aim to attract the attention of potential customers and motivate them to make purchase. Rostocks (2003) states that one of the major reasons that motivates people to buy is

“ look good on shelf” that is visual merchandising , which has significant impact on impulse buying. Mattila and Wirtz (2018) suggest that achieving to stimulate the store environment increases the chance of impulse buying because it leads to a momentary loss of self-control. The study focuses on effects of four types of visual merchandising on impulse buying behavior like window display, in-store form/mannequin display, floor merchandising and promotional signage. The study is significant because these factors have a strong influence on the purchase decision and will help the retailers to develop a marketing strategy. Many authors have studied the effect of store atmosphere on consumer behavior. Only a few studies have emphasized on visual merchandising as a major factor that motivates impulse buying in organized retail stores in Kerala.

OBJECTIVES OF THE STUDY

The major objectives of the study are:

- i. To know the relationship between consumer’s impulse buying behavior and visual merchandising.
- ii. To identify the role of factors like window display, mannequin display, floor merchandising, and signage on impulse buying behavior of the respondents.
- iii. To understand the response of customers about the various store attributes.

RESEARCH METHODOLOGY

Data were collected using structured questionnaire from 50 customers randomly selected. The questionnaire composed of 8 sections. The dependent variable selected was consumer’s impulse buying tendency. The independent variables were four types of visual merchandising - window display, in-store form/mannequin display, floor merchandising, and promotional signage. It was hypothesized that these four types of visual merchandising will influence consumer’s impulse buying behavior. Responses were recorded using five-point scale with choice options of 5= highly agree to 1= Highly Disagree.

HYPOTHESES

- H1. Customers impulse buying behavior is influenced by window displays.
- H2. Customers impulse buying behavior is influenced by mannequin display.
- H3. Customers impulse buying behavior is influenced by floor merchandising.
- H4. Customers impulse buying behavior is influenced by promotional signage

DISCUSSION

Frequency tables were generated to analyses the data in terms of demographics as well as respondents’ impulse buying tendency and the influence of four types of visual merchandising on their buying behaviors.

1.DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Table 1 Demographic Profile of the respondents

Demographic factors		Frequency	Per Cent
Gender	Male	14	28
	Female	36	72
Age	Up to 18	4	8.0
	18-24	6	12.0
	25-34	17	34.0

	35- 45	14	28.0
	45-60	9	18.0
Educational Qualifications	Up to Plus two	6	12.0
	Graduation	19	38.0
	Post-Graduation	16	32.0
	Others	9	18.0
Occupation	Govt Service	6	12.0
	Private Service	17	34.0
	Professional	11	22.0
	Others	10	20.0
	Student	6	12.0
Annual Income	Less than 120000	9	18.0
	1, 20,001 to 5, 00,000	12	24.0
	5, 00,001 to 10, 00,000	22	44.0
	More than 10,00,000	7	14.0

Source: Primary Data

The table 1 depicts the various demographic classifications of the respondents. The results of the study reveal that 72 percent of respondents are females and 28 percent were males. Majority of the respondents are in the age group of 25-34, followed by an age group of 35-45. 38 percent of the respondents have an educational qualification at graduation level followed by post- graduates. In relation with the occupation, majority of them are having private jobs, (34 percent) and 22 percent of them were professionals. 18% of the respondents have a monthly income below 120000 and 24% of the respondents have a monthly income of 120001-500000, 44 percent have an income of 500001-1000000, 14 percent have an income of more than 1000000 rupees.

2. Buying frequency

Table2. Distribution of respondents with respect to their opinion about how many times do they visit the organized retail

Frequency of visit	Frequency	Percent
Once in a week	19	38.0
Once in two weeks	19	38.0
Once in 4 weeks	7	14.0
Once in two months	5	10.0
Total	50	100.0

The buying behavior of the customers indicated that 38 percent of them visit the store once in a week, another 38 percent visits the store once in two weeks only. 14 percent of the respondents visited the store only once in 4 weeks and rest 10 percent visited only once in 2 months.

3. Influence of store attributes among respondents

Table3. Response of participants with respect to various store attributes

Store attributes	(%)
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Exterior store design	60%
Parking Facility	68%
Moving Space	72%
One stop shopping	72%
Convenient Location	74 %
Stock availability	74%
Store operating hours	74%
Availability of quality merchandise	74%
Store layout	76%
Store Ambience	76%
Store Cleanliness	76%
Billing Process & services	76%
Price of the products	80%
Product variety	82%
Availability of branded merchandise	82%

The participant's response with regards to various store attributes indicated that availability of branded merchandise and variety of product influenced 82 percent of the participants in the survey, price of the product following this with 80 percent. Exterior store design is the least preferred item among the store attributes.

3.Store Attributes

3.1. Convenient Location

Table4. Distribution of respondents with respect to their opinion about store location

Location	Frequency	Percent
Least preferred	3	6.0
Not preferred	1	2.0
Neutral	9	18.0
Preferred	10	20.0
Most preferred	27	54.0
Total	50	100.0

3.2. Price of the products

Table5. Distribution of respondents with respect to their opinion about Price of the products

Price of the products	Frequency	Percent
least preferred	2	4.0
Not preferred	2	4.0
Neutral	6	12.0
Preferred	14	28.0
Most preferred	26	52.0
Total	50	100.0

3.3. Parking Facility

Table6. Distribution of respondents with respect to their opinion about Parking facility

Parking facility	Frequency	Percent
least preferred	2	4.0
Not preferred	2	4.0
Neutral	12	24.0
Preferred	18	36.0
Most preferred	16	32.0
Total	50	100.0

3.4. Store Layout

Table7. Distribution of respondents with respect to their opinion about Store layout

Store layout	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	8	16.0
Preferred	15	30.0
Most preferred	23	46.0
Total	50	100.0

3.5. Store Ambience

Table8. Distribution of respondents with respect to their opinion about Store ambience

Store ambience	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	8	16.0
Preferred	15	30.0
Most preferred	23	46.0
Total	50	100.0

3.6. Store Cleanliness

Table9. Distribution of respondents with respect to their opinion about Store Cleanliness

Store Cleanliness	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	8	16.0
Preferred	17	34.0
Most preferred	21	42.0
Total	50	100.0

3.7. Moving Space

Table10. Distribution of respondents with respect to their opinion about Moving Space

Moving space	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	10	20.0
Preferred	18	36.0
Most preferred	18	36.0
Total	50	100.0

3.8. Exterior store design

Table11. Distribution of respondents with respect to their opinion about Store design

Store design	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	16	32.0
Preferred	12	24.0
Most preferred	18	36.0
Total	50	100.0

3.9. Stock availability

Table 12. Distribution of respondents with respect to their opinion about Stock availability

Stock availability	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	7	14.0
Preferred	12	24.0
Most preferred	27	54.0
Total	50	100.0

3.10. Product variety

Table 13. Distribution of respondents with respect to their opinion about Product variety

Product variety	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	5	10.0
Preferred	10	20.0
Most preferred	31	62.0
Total	50	100.0

3.11. Availability of branded merchandise

Table 14. Distribution of respondents with respect to their opinion about Availability of Brands

Availability of Brands	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	5	10.0
Preferred	20	40.0
Most preferred	21	42.0
Total	50	100.0

3.12. Store operating hours

Table 15. Distribution of respondents with respect to their opinion about Operating hours

Operating hours	Frequency	Percent
least preferred	3	6.0
Not preferred	2	4.0
Neutral	8	16.0
Preferred	20	40.0
Most preferred	17	34.0
Total	50	100.0

3.13. Availability of quality merchandise

Table 16. Distribution of respondents with respect to their opinion about Quality merchandise

Quality merchandise	Frequency	Percent
least preferred	3	6.0
Not preferred	1	2.0
Neutral	9	18.0
Preferred	11	22.0
Most preferred	26	52.0
Total	50	100.0

3.14. One stop shopping

Table 17. Distribution of respondents with respect to their opinion about One stop shopping

One stop shopping	Frequency	Percent
least preferred	2	4.0
Not preferred	2	4.0
Neutral	10	20.0
Preferred	15	30.0
Most preferred	21	42.0
Total	50	100.0

3. 15. Billing Process & services

Table 18. Distribution of respondents with respect to their opinion about billing

Billing	Frequency	Percent
least preferred	2	4.0
Not preferred	2	4.0
Neutral	8	16.0
Preferred	17	34.0
Most preferred	21	42.0
Total	50	100.0

4.Impulse Buying

Table 19. Respondent's opinion about Impulse Buying

Opinion	shopping to change mood		Sense of excitement in impulse purchase		Feel regret in impulse purchase		Difficulty in controlling the urge to buy when there is good offer		When there is good deal, tend to buy more than intended to buy	
	F	%	F	%	F	%	F	%	F	%
Strongly disagree	2	4.0	3	6.0	5	10.0	2	4.0	3	6.0
Disagree	5	10.0	2	4.0	6	12.0	2	4.0	1	2.0
Neutral	12	24.0	8	16.0	6	12.0	9	18.0	7	14.0
Agree	14	28.0	17	34.0	14	28.0	20	40.0	14	28.0
Strongly agree	17	34.0	20	40.0	19	38.0	17	34.0	25	50.0
Total	50	100.0	50	100.0	50	100.0	50	100.0	50	100.0

5.Influence of Window Display

Table 20. Respondent's opinion about Influence of Window Display

Opinion	Feel compelled to enter the store while seeing window display		Tend to enter the store while seeing window display		Used to look at the window display to see the latest fashionable trends	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly disagree	2	4.0	3	6.0	3	6.0
Disagree	2	4.0	1	2.0	1	2.0
Neutral	8	16.0	6	12.0	7	14.0
Agree	14	28.0	18	36.0	12	24.0
Strongly agree	24	48.0	22	44.0	27	54.0
Total	50	100.0	50	100.0	50	100.0

6. Influence of In-Store Form/Mannequin Display

Table 21. Respondent’s opinion about Influence of In-Store Form/Mannequin Display

Opinion	While seeing products featuring a new style or design on display, tend to buy it		Get idea about what to buy after looking through in-store or mannequin display		Tend to rely on store displays while making a decision to purchase products		Tend to buy while seeing products that are at in-store or mannequin display	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly disagree	3	6.0	2	4.0	3	6.0	3	6.0
Disagree	1	2.0	2	4.0	1	2.0	1	2.0
Neutral	7	14.0	7	14.0	8	16.0	7	14.0
Agree	17	34.0	19	38.0	16	32.0	15	30.0
Strongly agree	22	44.0	20	40.0	22	44.0	24	48.0
Total	50	100.0	50	100.0	50	100.0	50	100.0

7. Influence of Floor Merchandising

Table 22. Respondent’s opinion about Influence of Floor Merchandising

Opinion	Tend to try on products that catches my eye when I pass by		When I see products display that catches my eye, I tend to try it		When I walk along the aisle, I tend to look through product items displayed close to me	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly disagree	3	6.0	3	6.0	3	6.0
Disagree	1	2.0	1	2.0	1	2.0
Neutral	8	16.0	7	14.0	7	14.0
Agree	12	24.0	17	34.0	15	30.0
Strongly agree	26	52.0	22	44.0	24	48.0
Total	50	100.0	50	100.0	50	100.0

8. Influence of Promotional Signage

Table 23. Respondent’s opinion about Influence of Promotional Signage

Opinion	When I see a special promotion sign, I go to look at that product	If I see an interesting promotional offer on in-store signs I tend to buy	Sales sign entice me to look through and buy the products

	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly disagree	3	6.0	2	4.0	2	4.0
Disagree	1	2.0	2	4.0	2	4.0
Neutral	6	12.0	6	12.0	6	12.0
Agree	19	38.0	14	28.0	13	26.0
Strongly agree	21	42.0	26	52.0	27	54.0
Total	50	100.0	50	100.0	50	100.0

9. Correlation studies

Table 24. Pearson correlation between impulse buying behavior with window display, in store display, floor merchandising, and promotional signage

	Impulse buying
Window display	0.884623
In-Store Form/Mannequin Display	0.892584
Floor Merchandising	0.833896
Promotional Signage	0.831681

The Pearson partial correlation (based on data given from Tables 4 to 23) indicated that the dependent variable impulse buying behavior is positively and significantly correlated by the independent variables tested like window display, mannequin display, floor merchandising and promotional signage.

10. Regression statistics

Table 25. Regression Statistics

Regression Statistics								
Multiple R	0.9191							
R Square	0.8448							
Adjusted R Square	0.8310							
Standard Error	0.4253							
Observations	50							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	4	44.34459	11.08615	61.26743	1.24E-17			
Residual	45	8.142608	0.180947					
Total	49	52.4872						

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Impulse buying	0.218657	0.252812	0.864898	0.391682	-0.29053	0.727848	-0.29053	0.727848
Window display	0.550495	0.375528	1.465922	0.149623	-0.20586	1.306848	-0.20586	1.306848
Mannequin Display	1.262539	0.345217	3.657235	0.000665	0.567236	1.957841	0.567236	1.957841
Floor Merchandising	1.03827	0.283908	3.65706	0.000666	-1.61009	0.46645	-1.61009	0.46645
Promotional Signage	0.129971	0.185884	0.699203	0.488024	-0.24442	0.504362	-0.24442	0.504362

The regression statistics indicated that the dependent variable impulse buying behavior is positively affected by the independent variables such as window display, mannequin display, floor merchandising and promotional signage. It was observed from the study that the hypothesis tested were accepted and indicated that the customer's impulse buying behavior is significantly influenced by window displays, mannequin display floor merchandising and promotional signage.

CONCLUSION

The analysis of data collected from fifty customers of the organized retailers proved that there is a strong impact of visual merchandising on impulse buying behavior of customers of organized retailers. The selected visual merchandising techniques have each been found significantly correlated to the customer's tendency to impulse buying. The result of the study states that the customers are influenced by the availability of branded merchandise and variety of products followed by price of the products. Exterior store design is the least preferred item among the store attributes that leads to impulse buying. The study concluded that impulse buying behavior is significantly influenced by variables like window display, mannequin display, floor merchandising and promotional signage. In order to trigger impulse buying behavior, the retailers should keep in mind these significant factors because they highly motivate consumers to buy impulsively.

REFERENCES

- C.R. Kothari & Gaurav Garag(2014) Research Methodology (3rded), New Age International Publishers
 Kotler P & Armstrong G,(2008) Principles of Marketing (12thed), Pearson education
 Diamod J & Diamond E (2003) Contemporary Visual Merchandising Environments (3rdedn), Prentice Hall
 Kalla S M & Arora A (2011), Impulse Buying- A Literature Review, Global Business Review 12(1),145-147
 Rostocks L (2003), Tapping into the shopper impulse, Canadian Grocer,117(8)

A STUDY ON CUSTOMER ATTITUDE ON DIGITAL MARKETING AND PRIVACY ISSUES WITH SPECIAL REFERENCE TO SOUTH KERALA

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Abstract: We are living in a world of technology and it made the life of people easier and convenient. Improvement in technology has brought the world in our fingertip. Businesses are trying to build competitive advantage among their co-players, but it is possible only by identifying the technological pulse of the current globalized environment. Mere production and supply of goods and service will not make any sense without ensuring timely promotional strategies to reach our prospective customers. Studies shows that people spend daily average of seven hours online worldwide. In this scenario future oriented digital marketing plays a vital role by giving access to the mass market and also offers personalized marketing benefits. Digital marketing is one of the fastest growing form of marketing because of its high reach, visibility and results, however it is very important to understand the negative sides of digital marketing. It offers very severe security and privacy issues by collecting and using customer data for the marketing purpose.

This study was an attempt to understand in detail about how digital marketing works and the customer awareness and attitude about the various security and privacy issues associated with digital marketing with special reference to Trivandrum, Kollam, Alappuzha and Pathanamthitta Districts.

INTRODUCTION

The advent of Internet has changed the concept of traditional marketing. Internet has made everything accessible on their fingertip. In digital platform, customers can very easily access products, trends, offers, special deals and all the other information which are relevant to them. Electronic marketing made a revolution by removing the hindrance of place and time. Customers can now access the manufactures or retailers all over the world by sitting at their home or workplace without any time hindrance. Customers can view their products on their screen, access details about it, if they feel the product fits to their requirement they can directly go the payment gateway.

Digital marketing has made the growth of business to a fast pace because the ability to reach larger audience and targeting them with least efforts. Higher returns over investment and better brand image has made online marketing more attractive. The various channels of digital marketing includes, social medias marketing, Email marketing, Affiliate marketing, Online Display Advertising and Search Engine Marketing.

According to the report of Internet and Mobile Association of India (IAMAI), there are around 658 million internet users in India. The same report stating that Kerala is the second state with highest internet penetration. 87 out of 100 people have internet connectivity in Kerala. Covid 19 impact has scaled up the number of internet adopters in Kerala. This study shows that how much the people of Kerala rely on internet.

As the saying 'a coin has two sides', digital marketing has its own pros and cons. A personalized experience in digital marketing is only possible with the analysis of the personal information of the user. Companies which rely on digital marketing will track customer data for better service and thereby ensuring their own growth. The tendency of the marketing firms to collect personal information of customers has led to create distrust, fear and anxiety on customer regarding online purchasing. Electronic marketing platforms pauses a huge

threat on customers through unauthorized access, analysis and unsolicited transmission of personal information of customers.

This study is an attempt to understand the attitude of customers in south part of Kerala on digital marketing and privacy issues.

LITERATURE REVIEW

Rajiv Kaushik (2016) has conducted a study on the topic digital marketing in Indian context. This study was about the impact of increasing internet penetration and growth of digital industries. The study was pointing about the potential of digital firms to grow quickly within a technology dependent society. The paper suggests the importance of maintaining a good digital media plan and conducting digital marketing campaigns to build better brand recognition and loyalty among customers. Author concluded by stating that a better digital plan reduces the overall cost and provides a better ranking in search engines.

Yogesh Hole, Snehal Pawar and Vinod Malkar (2020) They have together conducted a study in context to the critical review of digital marketing with special reference to Indian context. This study recommended the importance of ensuring the presence of businesses on digital medium.

Haiqing Wang and Matthew K.O. Lee (1998) This study is discussing about the privacy concerns about internet marketing. The author pointing the pros and cons of digital marketing. He advocates that digital marketing offers tremendous potential for marketers and customers but at the same time it may cause privacy violations. Through his study he recommended a balancing of beneficial uses of data sources by protecting the privacy rights of customers.

Simon Kemp (2022) This article on 'Digital 2022: India' analysis the data regarding the digital adoption of people I India.

STATEMENT OF THE PROBLEM

The internet is becoming the largest marketing platform around the world. The advent of internet has changed the attitude of customers towards marketing. Businesses are ensuring their presence on digital platforms by understanding the scope and growth of internet based marketing. Customer's inclination towards digital marketing is high because of the positive sides of it. As the number of online dependents are increasing it is important to conduct a study on privacy perspective. A better digital marketing experience is only possible by tracking the personal data of customers, this in turn results severe privacy issues. Improper acquisition, use, unsolicited transfer and improper storage are common on digital platforms. This study is an attempt to check the attitude of customers towards digital marketing and related privacy issues. As Kerala is becoming the second largest state with high internet penetration rate increases the scope of the study.

OBJECTIVES

- To study the customer attitude on various aspects of digital marketing.
- To check the preference of customers in getting personalized experience from digital marketing platforms.
- To understand the attitude of customers on the type of personal data being collected.
- To identify the response of customers towards the benefits provided.
- To check the awareness and attitude of customers on various privacy issues posed by these digital marketing platforms.

HYPOTHESES

- There is no significant difference in customer attitude with the various aspects of digital marketing.
- There is no difference of opinion in the display of advertisements
- There is no significant difference in the attitude of customer regarding the type of personal information collected
- There is no favorable response towards the benefits provided by the online marketing system.

NEED OF THE STUDY

In the present scenario the efficiency and profitability of businesses are depending on how they ensuring their presence on digital platforms. Customer's attitude towards digital marketing has changed after the invention of internet. People are enjoying at most convenience by engaging on online purchase. Customers can directly connect to the manufactures or retailers from any corner of the world to opt their product. Wider choice, time and place convenience, economic purchase and availability of offers and discounts are the positive sides of digital marketing from the perspective of customers. Access to digital platforms made the business very easy to create a customer base worldwide. Increasing access to digital marketing has also raised the concerns about personal privacy. Personal contact information, financial information, usage details and other identifiable details will be traced on internet for the expansion of their business. It pauses serious threats to customers and it in turn results in fear and distrust on digital marketing platforms. In present scenario a study on attitude of customers towards online purchase and privacy issues are relevant.

METHODOLOGY

Research design used in this research is applied research. The primary data was collected from four selected districts including Trivandrum, Kollam, Alappuzha and Pathanamthitta. The tools used to collect primary data were a structured questionnaire and schedule. Secondary data was also used for the study purpose which was collected through literature review from various journal, articles and websites. Simple random sampling method is used to fix samples and 100 samples were collected from various parts of the districts. The main statistical tools used applied 9in this research includes ANOVA and T-test.

ANALYSIS

Analysis of Demographic Profile

Gender				Age				
Male	Female	Other	Total	Below 25	26-41	42-57	58-76	Total
53	47	0	100	52	40	7	1	100

Occupation						Income				
Student	Employed in Govt/Pvt	Unorganized sector	Unemployed	Retired	Total	Below 100000	100000-200000	200000-500000	Above 500000	Total
40	43	4	12	1	100	71	12	16	1	100

Education					Marital Status				
S.S.L.C	Higher Secondary	Graduate	Post Graduate	Total	Unmarried	Married	Divorced	Other	Total
1	22	46	31	100	51	47	1	1	100

Family Type				
Single	Nuclear	Extended	Other	Total
18	57	22	3	100

Analysis of Frequency of Purchase

Frequency of Purchase					
More than once a week	Once a week	Once a month	Occasionally	Never	Total
6	5	21	61	7	100

Analysis of the customer attitude on various aspects of digital marketing

Mean	N	Std. Dev
3.6	100	1.28
3.5	100	1.34
3.4	100	1.25
3.9	100	1.40
3.9	100	1.44
3.8	100	1.48
3.7	600	1.38

ANOVA table

Source	SS	df	MS	F	p-value
Treatment	21.37	5	4.275	2.28	.0452
Error	1,112.62	594	1.873		
Total	1,133.99	599			

Interpretation: It is clearly understood from the above table that convenience side of digital marketing attracts more customers towards online marketing mechanism. Time and place convenience, customer friendly purchasing procedure, facility to track order and availability of choices are the identified as the most positive sides of digital marketing. Customers have shown highly favorable attitude towards the identified factors. It is observed that personalized experience and cost advantages are least considering factors.

<i>Mean</i>	<i>n</i>	<i>Std. Dev</i>	
2.8	100	1.30	Lack of quality
3.0	100	1.20	No value for money
3.0	100	1.26	Chance of delivering damaged products
2.9	100	1.28	Complicated return process
3.0	100	1.28	Lack of sales assistance
2.7	100	1.42	Lack of physical experience of the product
3.2	100	1.43	Lack of trust in online payments
3.3	100	1.30	Fear of privacy issues and security threats
3.3	100	1.27	Heavy traffic on websites
3.0	900	1.32	Total

<i>Source</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>p-value</i>
Treatment	39.99	8	4.999	2.93	.0031
Error	1,518.61	891	1.704		
Total	1,558.60	899			

Interpretation: The above table shown the attitude of customers towards the factors that may bring them back from online purchasing decision. It is clearly understood from the analysis that customers have high concerns towards privacy issues and security threats as well as the heavy traffic on websites. Also identified that lack of trust in online payments also a factor which negatively influence online purchasing decision. According to the study customers are comparatively satisfied with the quality aspects and return process. It is understood that lack of physical experience is one of the least bothering factor for the customers.

Preference of customers in getting personalized experience from digital marketing platforms

<i>Mean</i>	<i>n</i>	<i>Std. Dev</i>	
2.5	100	1.42	Display of ads will not make any discomfort
2.7	100	1.31	Ads link help to navigate easily
3.1	100	1.26	Ads give information about product updations Personalized experience is possible through
2.9	100	1.32	Ads promoting individualized marketing
3.2	100	1.37	Ads updates about offers and discounts
2.8	100	1.30	Comfortable with the personalized experience
2.9	600	1.35	Total

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p-value</i>
Treatment	37.91	5	7.583	4.27	.0008
Error	1,054.46	594	1.775		
Total	1,092.37	599			

Interpretation: It is understood from the study that customers have highly favorable attitude towards the display of advertisements on their digital platforms. The study shown that, customers have strong agreement towards the benefit side of advertisement including offers,

discounts and product updation etc. They are completely agreeing on the statement that ads will not make any discomfort.

Attitude of customers on the type of personal data being collected

Mean	n	Std. Dev	
2.8	100	0.64	Gender
2.8	100	0.64	Age
2.4	100	0.80	Phone Number
2.4	100	0.82	Home Address
2.4	100	0.81	Location
2.8	100	0.57	Interests
2.5	100	0.82	Income
2.3	100	0.83	Search History
2.3	100	0.86	Emails and social media profiles
2.2	100	0.86	Recorded conversations
2.4	100	0.86	Activities on websites
2.7	100	0.77	Previous purchase
2.6	100	0.79	Health information
2.5	1300	0.80	Total

ANOVA table					
Source	SS	df	MS	F	p-value
Treatment	60.15	12	5.013	8.26	3.56E-15
Error	780.83	1287	0.607		
Total	840.98	1299			

Age wise analysis of the attitude of people in collecting their personal data

	Gender		Age		Phone No		Location		Income	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Mean	2.92	2.72	2.92	2.7	2.6	2.13	2.49	2.38	2.51	2.43
Std.dev	0.62	0.65	0.65	0.62	0.74	0.8	0.82	0.8	0.8	0.85
N	53	47	53	47	53	47	53	47	53	47
P-value	0.1152		0.0836		0.0026		0.5091		0.613	

Search History		Emails & social media profiles		Recorded conversations	
Male	Female	Male	Female	Male	Female
2.32	2.3	2.38	2.13	2.3	2.04
0.85	0.81	0.84	0.88	0.82	0.88
53	47	53	47	53	47
0.8907		0.1483		0.1318	

Online activities		Previous purchase		Health Information	
Male	Female	Male	Female	Male	Female
2.45	2.23	2.64	2.81	2.55	2.62
0.8	0.91	0.76	0.77	0.82	0.77
53	47	53	47	53	47
0.2043		0.2791		0.6627	

Interpretation: From the analysis it is clear that customers are highly concerned about tracking or recording their personal conversation. Also it is understood that tracking of search history, Email and social media profile are completely unsafe as per the opinion of people. The analysis of mean variance indicating that tracking of gender, age, interests and previous purchase history are very safe. The analysis of T-test shows that females have more concern in sharing their contact number on digital platforms.

Analysis of the customer response towards the benefits provided by digital marketing platforms

Mean	n	Std. Dev	
3.3	100	1.29	Chance of getting discounts
3.2	100	1.29	Chance to win coupons
3.3	100	1.30	Attitude on redeeming rewards
3.3	300	1.29	Total

Source	SS	df	MS	F	p-value
Treatment	1.71	2	0.853	0.51	.6023
Error	498.96	297	1.680		
Total	500.67	299			

Interpretation: Chance of getting discounts, rewards and offers have high acceptance in digital marketing platforms. It is the one factor which attracts more customers to digital marketing mechanism.

Analysis of the attitude of customers towards various privacy issues of digital marketing platforms

Mean	n	Std. Dev	
2.0	100	1.16	Accessing personal information
2.5	100	1.18	Monitoring search history and interests
2.1	100	1.10	Sharing of personal information
2.2	300	1.16	Total

ANOVA table	SS	df	MS	F	p-value
Treatment	12.86	2	6.430	4.88	.0082

Error	391.14	297	1.317		
Total	404.00	299			

Interpretation: It is found that customers strongly disapprove the access, usage and transfer of their personal information without their consent. Even though the analysis given a clue on the fact that monitoring search history and interests are acceptable in an extent to get individualized experience.

FINDINGS

Digital marketing has tremendous potential for both the customers and businesses. Customers have positive and negative attitude towards the different aspects of digital marketing. Convenience, tracking and monitoring, wider choice makes online purchase more acceptable than traditional marketing.

It is found that people have high agreement on the personalized experience provided by the digital marketing platforms.

The customer's attitude towards sharing their personal information is linked with sensitive nature of the information. They are highly reluctant in sharing information like recorded conversation, emails and social media profiles, search history, contact information and online activities. It is found that customers have mild concern in sharing their gender, age, purchase history etc. in digital marketing platform.

It is found that customers have positive response towards the benefits provided by the digital platform, It helps the business to attracts new customers and retain existing customers.

It is found that customers are always concerned about the privacy issues like accessing, monitoring and transmitting their highly sensitive personal information.

RECOMMENDATIONS

Digital marketing platforms have tremendous opportunities. It should be designed properly to connect customers over internet.

The proper balance of beneficial use of online marketing platforms and protection of privacy rights of customers should go hand in hand.

There should be a mechanism to receive the consent of customers before collecting, processing, storing and transferring personal data of customers.

It is important to ensure the management of 4C's of privacy including Control, Choice, Commitment and Compensation.

CONCLUSION

Digital marketing offers a tremendous growth potential for both customers and businesses. A proper balancing of favorable use of customer's personal information while protecting their privacy is highly recommended. It is important to receive the consent of customers before accessing, monitoring and transferring their personal information. A strong legal system can protect the privacy rights of people through its proper enforcement and monitoring. The management of 4C's of privacy including control, choice, commitment and compensation are necessary for the success of digital marketing in future. It has to be ensure the right of customers to know what type of data is being collected, what is the purpose of it, to whom the data is disclosed etc. We can convert digital platform into a perfect market place by focusing on the protection of privacy aspects of customers.

REFERENCES

- Ahuja, V. (2015). Digital Marketing. Oxford University Press.
- Anil.G.S., Digital and Social Media Marketing, Himalaya Publishing House
- Strauss.J., Frost, R.& Ansary.A.I (2009). E-marketing (Vol.4). Sao Paulo: Pearson Prentice Hall.
- Huaiqing Wang, Matthew K.O.Lee & Chen Wang,(1998) Consumer Privacy Concerns about Internet Marketing. Retrieved from [\(PDF\) Consumer Privacy Concerns about Internet Marketing \(researchgate.net\)](#)
- Levi Neuland,(June6,2018), The Impact of Privacy on Digital Marketing. Retrieved from [The Impact of Privacy on Digital Marketing - The Martin Group](#)
- Yogesh Hole, Snehal Pawar and Vinod Malkar (April 2020), A Critical Review of Digital Marketing with Special Reference to an Indian Context, Journal of Xi'an University of Architecture & Technology. Retrieved from [View article \(google.com\)](#)
- Rajiv Kaushik (April 2016), Digital Marketing in Indian Context. Article retrieved from [\(PDF\) Digital Marketing in Indian Context \(researchgate.net\)](#).
- Simon Kemp,(2022),Digital 2022:Global Overview Report. Retrieved from [Simon Kemp – datareportal – Global Digital Insights](#)

A STUDY ON THE EQUATED MONTHLY INSTALLMENT SCHEMES AVAILED BY BANKS AND IT'S IMPACT ON CONSUMER BEHAVIOR IN RELATION TO PURCHASING POWER

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ABSTRACT

This study focuses on how Emi schemes are changing the consumer behavior in relation to purchasing power. Program by banks which provide loans for various household appliances and other needs. Equated monthly installments divides the total amount due into a monthly basis and amount is deducted from the particular person's account. The population currently is looking for goods that they are not able to buy as lump sum. They want to show their status to the world as they can afford it. This has also started another misconception among these people as they are not considering the true fact that they have to repay it. This mentality creates an impression of higher purchasing power. Let us consider the case of mobile phones. Mobile phones are one of the most number of product that comes under this scheme, this in turn has increased the number of premium phones being sold. This will be the most affordable according to his annual income. But if a person wants show a status symbol he may go for any phone nearing 1 lakh. This want is the source for EMI's being taken. EMI facility sometimes creates a false belief of affordability. At the initial stage the amount to be paid may sound meagre but the problem arises when it cuts down the amount they can spend for their livelihood.

KEYWORDS:*EMI, purchasing power, affordability, mentality, belief*

I. INTRODUCTION

The status symbol that is seen by people in our surrounding is through the things we buy. When a person buys a particular product it sets a bar on what financial background the person is coming from. Other will set a deterministic value on the particular person's purchasing power. Earlier this was the case if you didn't save much you won't be able to purchase product of high amounts like a car. This has changed dramatically in the past decade with the introduction of EMI scheme or Equated monthly installments. EMI has helped to reduce the distance between what the rich and poor can achieve. This has raised the feeling of higher purchase power among the population. People are more psychologically ready to spend a huge amount in a distributed manner rather than in a bulk manner. A customer may even buy an item which is beyond the total annual income of that person like say a car costing more than Rs 15 lakhs. This is the increase in purchasing power on condition. If unnoticed it could end up in a financial crisis. Most people who take EMI's at start don't take in the feeling of payment that has to be paid monthly. In this study we are exploring how it impacts the financial management.

II. STATEMENT OF THE PROBLEM

EMI schemes are now being used more and more and thus people are falling into it even without thinking the various after effects that could happen. The personal financial management is more important win coming age as people are now spend thrifting and the need for conscious awareness is important. Thus there is problem of mismanagement of schemes being availed.

III.OBJECTIVES

- ◆ To study the EMI schemes by banks
- ◆ To study the impact of EMI in purchasing power
- ◆ To study the effect of EMI in personal financial management
- ◆ To study the causes of financial crisis due to EMI's

IV. RESEARCH METHODOLOGY

◆ Sources of data

The data used for this study is both primary and secondary data. Primary data is collected by distributing questionnaires to respondents who go for EMI loans. Secondary data was collected from websites, journals, magazines etc.

◆ Sample design

- i. Population: The customers who have purchased through EMI schemes
- ii. Sample Size: The size taken for study was 120
- iii. Sampling method: Sampling method used was convenience sampling
- iv. Tools for data analysis and representation: For analysis part, percentage analysis was used. The tools for data representation are tables and charts.

V. LIMITATIONS OF THE STUDY

- ◆ The study could not look into other effects of EMI
- ◆ The study did not look into other factors affecting purchasing power
- ◆ The study did not consider other factors affecting personal financial management

VI. SIGNIFICANCE OF THE STUDY

This study helps to understand the impact of EMI schemes in purchasing power. This enables for better financial management for personal use. This study is also useful to understand the human behaviour in making various financial decisions regarding the surplus of income available.

VII. REVIEW OF LITERATURE

S. Jeyakumar- 2010 As per a study on “Consumer Durables Rural India Calling”, India is set to become the 5th largest consumer market by 2025. Consumer durables industry is growing at a fast rate due easy availability of loans, increase in double-income families, government support, availability of disposable incomes and various other factors.

Anita Goyal -2018.A study on the topic “Managing Perceived Risk for Credit Card Purchase Through Supplementary Services” reveals that supplementary services play a significant role in controlling the functional and psychological risk associated with the purchase of credit card services. An interesting fact is that with credit card supplementary services, females perceive more functional benefits while males perceive more psychological benefits

R.A.Itoo, 2017 - In the banking sector, retail lending has become the main source of profits. As per the study on the topic “Loan Products and Credit Scoring Methods”, most banks have retail of around 20% of their total lending and these rates are growing rapidly at 30-35% per year. In India, retail banking includes credit cards, debit cards, housing loans, personal loans, educational loans, vehicle loans, insurance and other consumer durable loans.

Rania Kabir and UmmulWaraAdrita, 2014 - A study on “Consumer Credit Scheme of Private Commercial Banks: Consumers’ Preference and Feedback” reveals that consumer credit schemes seems very convenient to the consumers. The credit schemes are more popular

among medium income level consumers. Among the different types of credit schemes, consumers are mostly for household durable loans.

Madiha Khan and Shejuti Haque, 2020 - The study on “Impact of Buy Now-Pay Later Mechanism through Instalment Payment Facility and Credit Card Usage on the Impulsive Purchase Decision of Consumers: Evidence from Dhaka City” reveals that buy now-pay later mechanism proved beneficial for most of the respondents. The buy now-pay later mechanism creates an impulsive buying decision which may negatively affect future spending on necessities.

VIII. THEORY OF STUDY

A. EMI SCHEMES

Lenders compete each other in an effort to attract more customers. Personal loans and car loans are repaid in Equated Monthly Instalments by the borrower to the lender over a specified period of time called the loan tenure. By repaying a loan in EMIs over a specified period of time, the borrower can create a budget to balance his or her monthly income and expenses. There are 2 types of EMI payments that a borrower can choose to make - EMI in Arrears and EMI in Advance.

EMI in Arrears is also known as the standard EMI. Here, the loan is repaid by the borrower by making EMI payments at the end of each month over a specified loan tenure.

EMI in advance is also known as Advance EMI. This type of EMI payment is offered by many banks in the country. Here, the first EMI payment is made in advance to the bank wherein, the principal amount minus the processing fee and the first EMI amount is disbursed to the borrower's bank account.

The EMI to be paid may vary over the course of the loan tenure under certain circumstances, such as:

- **Loan Prepayment:** Some banks provide an option to prepay a portion of the loan amount as a lump sum, much ahead of the scheduled payment. If this part is paid, then the principal amount is decreased, thus lowering your interest amount and reducing the EMI amount payable.
- **Type of interest rate:** In fixed interest rate loans, the EMI amount remains unchanged. However, in case of floating interest rate, the interest rate changes as per the market conditions, thus changing the EMI amount payable.
- **Progressive EMIs:** Certain banks and lending institutions provide the option of making progressive EMIs. In this, a fixed EMI is paid for a specific time period and later, the payment amount increases. This facility is usually availed for long-term loans.

This can be done with the help of an EMI Calculator. The top Indian banks which provide EMI calculators on their websites include SBI, HDFC bank, ICICI bank, Union bank, PNB and Axis bank.

B. PURCHASING POWER

Purchasing power of the consumer is usually determined by the amount that person earns and it also determines the standard of living of that person. Purchasing power is the value of currency expressed in terms of number of goods and services a person can buy. In the long time consider a person is saving Rs 500000 for buying a particular car. In the end of 5 years the price of the car would have gone up in a marginal thus making it harder for person to buy the particular car.

The person will now have to accumulate new funds for the particular product.

C. RELATION BETWEEN EMI SCHEMES AND PURCHASING POWER

EMI or equated monthly installments is a way in which a consumer distributes the total amount of a product over a period of time. Emi has paved the way for people to aspire for something bigger. Consider a person who earns an income of Rs. 600000 per year he might think about purchasing a car of Rs. 500000 with the savings that has been made in 3the years. With the help of EMI rather than just limiting himself to a smaller car he could wish to get a bigger car. If the monthly amount to be paid is within the grasp of the person, he could go for it. This induces a feeling of higher purchasing power within the consumer. From that moment the person feels a higher standard of living within himself. The increase in feeling of higher purchasing power now motivates for more number of similar purchases as he is just contributing a small part of income for the purpose.

D. Impact of EMI on the personal financial management

As the EMI creates an induced higher purchasing power among the consumers it will impact on the various financial decisions being taken by the consumer. The EMI facility enables the consumer to distribute the cost over a period of time. The thought process varies from person to person. Usually most people just calculate it from the total income and not the income left after essential expenses.

For eg. Let us consider a person who buys car worth Rs. 1000000 for a monthly EMI of Rs. 15000 and the monthly income of person is 50000 which leaves 35000 for the other expenses. But the consumer misses out the additional expenses a person has to incur to use the particular car which reduces the amount left for essential expenses. This crunches the savings and with overburden it could even crunch the financials available for the company. The asset thus of higher purchase becomes a backup.

IX. DATA ANALYSIS

• Interval of EMI loans

Majority of the population do not go for EMI loans that frequently

• Comfortable amount of EMI permonth

About 50% are comfortable to pay between 1000-5000

Next majority is of 10000-15000 of 30%

• Payment anxiety

Majority of 67% people get payment anxiety not much frequently followed by 22% who get anxiety mostly.

• Balance availability

Majority 60% have balance before the prescribed date of deduction of installment

• Enabled higher standard of living

Majority 70% of Emi takers do agree in a rise in standard of living.

X. OBSERVATIONS

- ◆ Almost none of the people have no preference to any banks
- ◆ About 60% of people have experience in EMI loans
- ◆ 50% of people prefer high value EMI's and other 50% prefer low value EMI's
- ◆ About 60% people prefer to take EMI's on an interval of one or two years while other 40% prefer in interval of months
- ◆ 60% of people do have prior balance in the account before due date
- ◆ 67% of people are sometimes worried of capacity to pay.
- ◆ 70% agree they have been able to increase their standard of living through EMI

XI. SUGGESTIONS

- ◆ The EMI schemes should have studied in detail by the customers
- ◆ The customers should have a good understanding of the balance of payments

- ◆ EMI should be mostly used in cases of huge payments
- ◆ Small EMI schemes should be taken one at a time
- ◆ The misconception of increased purchasing power should be always being in notice

XII. CONCLUSION

The study concludes that there is a relationship between the EMI schemes being availed and the need for right financial decisions. The study also shows how people are in perspective toward the various EMI schemes and how they react to the financial constraints. It shows how an induced purchasing power affects the financial decisions in future.

REFERENCES:

- ◆ <https://www.journalfirm.com/journal/161/download>
- ◆ https://efy.efymag.com/admin/issuepdf/Consumer%20Durables_Dec10.pdf
- ◆ <https://www.investopedia.com/terms/p/purchasingpower.asp>
- ◆ <https://www.bankbazaar.com/finance-tools/emi-calculator/top-bank-providing-emi-calculator.html>
- ◆ <https://economictimes.indiatimes.com/analysis/what-is-emi-and-how-is-it-calculated/articleshow/39880530.cms>

ENGAGING DIGITALLY WITH AGRI-PRODUCT CUSTOMERS: A REVIEW

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Abstract

Access to digital technologies has attracted several people to social media platforms. Low-priced technology-powered accessories that provide easy access to the internet and allied sectors increased social media platforms' popularity. Social media sites are being used more often, not just for interactions but also for information gathering. Different products and services are introduced through social media and people who use them often investigate and gather information through the same means. Customer interactions with the brands in termed customer engagement. Access to the Internet of Things (IoT), advanced technologies, etc., contribute to digital customer engagement. Customer engagement has been shown to play a vital role in customer behaviours, including loyalty. Competitive business strategies consider customer engagement as a strategy to increase market share and profits.

Most agri-products are perishable, are sold in small and fragmented markets, and suffer from limited information flow. Digital marketing techniques can enable small agribusiness owners to reach needy consumers. The antecedents and consequences of online customer engagement can be identified through empirical studies in digital marketing. This paper intends to highlight such facts, reviewing a few case studies on digital marketing, including electronic customer engagement through social media platforms. Small business initiatives have specific customer engagement strategies and they may vary. Based on the reviews, customer engagement was determined by interactions with the brand, identification with the brand, etc., while brand loyalty and repurchase intention were counted as outcomes.

Keywords: *Customer Engagement, Digital Marketing, Customer Loyalty, Social Media Marketing, Customer Benefits*

Introduction

The popularity of social media has exploded in India in recent years, and Smartphones have made this possible due to widespread usage and low telecommunication rates. In the 21st century, technology helps to create value for the customer. Different methods have been developed for creating data, which is vital to marketing effectiveness. A revolution in technology and communication has led to profound changes in consumer behaviour and marketing strategies. Therefore, conventional promotional tactics are insufficient to promote marketing messages, such as print advertisements, cold calls, and trade shows. They can educate themselves earlier than in the buying process (Moza, 2022).

According to reports, 4.62 billion people utilise social media worldwide. (Digital 2022: Global Overview Report, 2022). Several businesses consider social media as a platform to boost brand awareness and brand loyalty. It enables two-way direct intercommunication and swift conversations between companies and their customers (Muchardie et al., 2016; Vinerean&Opreana, 2021). Companies invest heavily in social media to promote their brands. The transformation has quickly changed the current marketing landscape, establishing connections between marketers and other consumers. This innovation has created many new prospects and opportunities in commerce and industry. It redefines how consumers react to exposure through shopping (Husnain&Toor, 2017).

Social media introduces a variety of goods and services, and users of these platforms frequently conduct research and obtain information in the same way. Customer engagement

describes how customers connect with brands, and businesses must learn how to engage their consumers to maintain long-term connections. While some clients are drawn in by appropriate and high-quality offerings, others genuinely look for an emotional connection (Jarvi, 2018). Marketing professionals and academicians acknowledge social media customer engagement as a critical marketing accomplishment.

Customer interaction research emerged in the early 2000s and adapted to technological advances and consumer preferences. It is becoming increasingly important to study consumer interaction from a theoretical and managerial perspective, but there is no uniform paradigm for analysing social media customer involvement. According to Sashi (2012), customer engagement is a seven-stage process involving connecting with the customer and introducing the product/service through customer interaction. Following this is providing a sense of satisfaction to customers, retaining the satisfied customers, enhancing customer loyalty through predetermined strategies, and ultimately leading to brand promotion through word of mouth that leads to customer engagement. Relationships with customers continue to be built through this cycle. 'Research by McKinsey's benchmarking unit on telecom sector recognised Seven stages of digital customer engagement as Attraction, conversion, fulfilment, activation, experience, engagement, and renewal' (Backes et al., 2020).

Even with several research endeavours relating to customer engagement, specifically digital customer engagement, the managers still have a dilemma applying several customer engagement strategies to maintain healthy customer relation management. Agri products like groceries, veggies, fruits, flowers, etc., are perishable, and companies need a strong business background to engage customers in their offerings. The current study takes up this problem further to define digital customer engagement and frame a conceptual model for engaging customers who seek Agri products online.

The research questions are: 1) What elements contribute to digital customer engagement strategy? 2) How does it impact agribusinesses?

Review of Literature

Customer engagement is a vast topic identified as a critical component in designing marketing strategies. Few studies intended to have an in-depth understanding of the process were covered. Patterson et al. (2006) proposed that a customer's psychological involvement is determined by the degree of energy, dedication, absorption, and interaction. Research has shown that customer engagement is boosted by companies' products, workshops/experiences, institutions, and brands (Vivek 2009). A conceptual definition of customer engagement through social media was attempted by Sashi (2012).

Several studies investigated the impact of social media marketing on customer engagement (Farook et al., 2016; Muchardie, 2016 & Musa et al., 2016). Sofiyah et al. (2018) studied the influence of customer engagement on customer relationships through social media. Gosain et al. (2019) investigated the characteristics of online brand pages and how they influence customer engagement with businesses. Backes et al. (2020) investigated the strategies formulated by telecom companies for the online attention of their customers. Balio and Casais (2021) researched the factors that influence customer engagement on the social networking platform Facebook. Liu et al. (2021) conducted a Big data analysis on how luxury brands' social media marketing strategy influences customer engagement. Customer engagement was examined in Vinerean and Opreana's (2021) study of social media marketing tactics. Mosa (2022) observed the influence of inbound marketing on encouraging online customer engagement. Santos et al. (2022) investigated how community, brand, mass communication, and social aspects affected consumer engagement.

All the investigations mentioned in detail about customer engagement have suggested further studies as the concept is broad and multi-dimensional. Customer engagement plays a significant role in formulating marketing tactics, and Agri-marketing at a development stage needs a solid conceptual understanding of customer engagement. This paper intends to fill the gap.

Customer engagement

The Advertising Research Foundation described customer engagement in 2006 as drawing a potential customer's attention to a particular brand or offer when a favourable circumstance exists. Several researchers have defined the concept of customer engagement since then. Gummerus et al. (2012) categorise customer engagement as community engagement behaviours and transactional engagement behaviours. Sashi (2012) explained customer engagement as a seven-stage process. Four stages of customer engagement are proposed by Evans, i.e., consumption, curation, creation, and collaboration. Digital customer environments are said to be successful if customers are engaged (Verhagen et al., 2015). Vinerean and Opreana's (2021) expressed customer engagement in its recent categorisation from cognitive, emotional, and behavioural perspectives.

Methodology

The study searched several literature sources to obtain nearly 1,700,000 instant results on Google scholar. The search further filtered to a particular period, 2015-22 and the publication links were sheared to 377,000. The keyword customer engagement was modified to digital customer engagement to get 104,000 sources at Google scholar. Using quotations for the term 'digital customer engagement', the results obtained were 413. The publications were scanned to categorise the articles further and useful publications were selected additionally for the study. Specific cross references were also included to understand the topic thoroughly. Toward the achievement of the objectives, about 32 publications were deemed significant. Detailed reviews of these publications were made to identify the Antecedents and subsequent factors and to prepare a conceptual model to understand digital customer engagement.

Theoretical perspective

Customer engagement is measured and evaluated from customer behaviour/attitude to a particular brand or offer. Hence behavioural theories are employed in this study to understand the concept of customer engagement. The stimulus-response model formulated from classical conditioning was used to develop the conceptual model of digital customer engagement.

Another theoretical basement to explain customer engagement is the uses and gratifications theory (UGT) proposed by Katz et al. (1973), which was extended lately (Katz, 1974). UGT argues that people make use of media channels for their benefit. In other words, it is a subjective evaluation of the psychological benefits of using media channels. Tracks are selected primarily based on their ability to meet these needs among alternatives.

These concepts would allow for the formulation of a customer engagement model.

Antecedents

Antecedents to customer engagement are detailed below. Several studies categorised them differently, and similar characteristics are grouped under a single constraint.

Customer Involvement

Customer involvement is termed as the active participation of a customer in various messages, offerings, advertisements, news, postings, etc., from a brand or a company. Vivek (2009) included conscious customer involvement as an antecedent in the customer engagement scale. Harrigan et al. (2017) examined consumer engagement, similar to customer engagement at cognitive, emotional, and behavioural levels. The empirical study

demonstrated consumer involvement in both information and emotion. Jarvi (2018) considered the negative side of customer involvement as irrational expectations and poor customer behaviour that may impact a negative customer engagement pattern. Companies that respond quickly to customers' needs were successful in digital marketing. Customers should be encouraged to use the mobile application developed to help the company track customer preferences and offer their requirements. Simple, customer-friendly applications that enhance customer interaction with specific messages contribute to achieving customer engagement (Backes et al., 2020). In the empirical study by Vinerean and Opreana (2021), customer engagement was found to have a strong predecessor in the form of customer involvement.

Social Media Marketing

Marketing tactics applied by the brands on social media in the form of advertisements, messages, blogs, brand profiles, etc., were also termed to impact customer engagement. Social interaction is one of the dimensions of customer engagement estimation (Vivek 2009). As customers communicate their requirements through social media, marketing mix decisions are more likely based on those requirements. Customers promote the company's offerings to other potential customers. Sashi (2012) details a customer engagement matrix based on customer relations and customer emotions. Price-sensitive customers are termed transactional customers who don't have an attachment to the brand/company. Such customers become loyal upon enhancing customer relations and become delighted when the customer emotionally relates to the brand/company. Fans of a company are those who use the products frequently and continue to support them. Engagement with customers was based on trust and commitment. Farook et al. (2016) investigated the impact of social media marketing on customer engagement. The findings showed that the media and content types of posts significantly impact how engaged customers are online. It also emphasised that social media marketing is positively correlated with customer engagement. Muchardie (2016) reported the positive impact of social media marketing on customer engagement.

The effectiveness of Social Media Marketing was explored by Musa et al. (2016). The study reported that customer engagement, brand reputation, and customer attitude to the brand effectively influence the online performance of SMEs in Malaysia. Sofiyah et al. (2018) studied the influence of customer engagement on customer relationships through social media. The study considered the four stages of customer engagement proposed by Evans, i.e., consumption, curation, creation, and collaboration. The investigation suggested that consumption, curation, and creation stages enhance customer relationship management. The study also considered the involvement of social media and reported that customers at primary stages as consumption and curation influence customer relationship through social media. Gosain et al. (2019) investigated the characteristics of online brand pages. They observed that social interaction and self-expressive behaviour impacted customer engagement. Abou-Shouk and Soliman (2021) found that gamification had a substantial impact on consumer involvement. Balio and Casais (2021) researched the factors that influence customer engagement on the social networking platform Facebook. Type of the Facebook post, appeal/style of the post, time frame in which the post was published, and the content/message interactivity were found to impact customer engagement. The entertainment, interactions, and trendiness to promote luxury brands on social media enhance customer engagement (Liu et al., 2021). According to Matosas-López and Romero-Ania, (2021), the number of retweets by brand and customer experience publications significantly increases customer engagement. Customer participation in response to social media marketing tactics was observed to impact customer engagement. (Vinerean and Opreana's, 2021). Inbound marketing strategy enhances

online customer engagement (Mosa, 2022). Thus, social media marketing, being a broad concept, several works supports its influence on customer engagement.

Customer benefits

Advantages and delightful experiences realised by the customer have considered the customer benefits that further lead to customer engagement. Vivek (2009) and Gummerus et al. (2012) consider such excitements and delightful experiences felt by the customer to impact customer engagement positively. Verhagen et al. (2015) studied customer benefits that lead to engagement in virtual/digital customer environments. In a detailed review of works, they categorised the characteristics of virtual customer engagement into four. These are Cognitive benefits (Access to knowledge & feedback), Social integrative benefits (Social identification & social ties), Personal integrative benefits (Peer recognition and company recognition) and Hedonic benefits (self-expression and social conscience). The model connecting the variables was validated to significantly reveal that cognitive, social, and hedonic benefits affect customer engagement intentions. Tourchian et al. (2022) classified customer benefits as confidence, social, and special treatment benefits. An empirical study to evaluate customer engagement value in the Iranian service sector gave significant evidence of the influence of customer benefits on customer engagement (Customer lifetime, influence, knowledge and referral) values.

Trust and commitment

Numerous studies provide evidence for the involvement of trust and commitment to customer engagement. These two are vital in digital agri-marketing, which is characterised by continuous risks, unpredictability, and technological insufficiency. Sashi (2012) and Farook et al. (2016) gave evidence for the influence of trust and commitment on customer engagement. According to de Oliveira Santini et al. (2020), trust is an antecedent of customer engagement in social media (CESM), while commitment has no significant effect. Van Tonder and Petzer (2018) found that trust and commitment were antecedents to customer engagement among relationship constructs in the service industry. To investigate the mediating influence of customer engagement in the short-term insurance market, Petzer and van Tonder (2019) asserted evidence supporting trust and commitment as antecedents of the construct. Customer engagement in social media is also impacted by active involvement, community trust, and community commitment (Vohra & Bhardwaj 2019).

Consequents customer engagement

The research on customer engagement leads to the outcome of customer engagement. The marketing team would feel more focused and able to develop strategies to improve performance if they were aware of the results of customer involvement.

Customer satisfaction

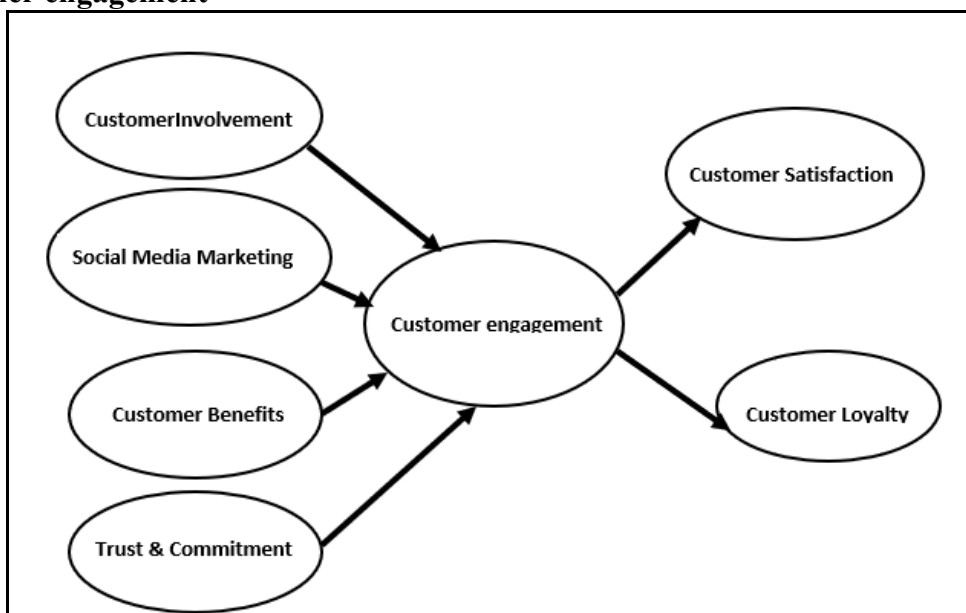
Customer satisfaction may be termed as the primary outcome of customer engagement. When the offering/product/service meets the customer's expectation, they become satisfied and later transform into loyal customers. Gummerus et al. (2012), along with Farook et al. (2016), advocate the effect of customer engagement on customer satisfaction. Halal tourism and customer involvement have been demonstrated to have a substantial influence on visitor satisfaction (Abror, 2019). In a study on the impact of customer experience on customer satisfaction in e-commerce, Zaid and Patwayati (2021) found that customer experience influences customer satisfaction through customer engagement. Agyei et al. (2021) validated customer satisfaction as a predictor of customer engagement in a study to link corporate social responsibility to life insurance customer engagement.

Customer loyalty

The technical definition of a positive ongoing relationship with the customer that keeps the customer purchasing the same brand/product/service is termed customer loyalty. Gummerus et al. (2012) and Sashi (2012) give evidence for the influence of customer engagement on customer loyalty. Muchardie (2016), while investigating the case of the cosmetic brand Caring Colours, reported that customer engagement eventually results in the transformation into a loyal customer. Consumers who engage with a business tend to maintain brand loyalty compared to non-engaged consumers (Harrigan, 2017). Backes et al. (2020) reported that customer engagement contributes to loyalty. It was demonstrated by Abou-Shouk and Soliman (2021) that customer engagement is significant in influencing brand awareness and brand loyalty. Customer engagement mediates the impact of online customer experience on customer loyalty (Zaid and Patwayati, 2021).

Figure 1 below is the conceptual model representing the antecedents and subsequent variables of customer engagement

Figure 1: conceptual model representing the antecedents and subsequent variables of customer engagement



Findings and suggestions

The conceptual model formulated portrays the enablers of customer engagement along with its subsequent variables. Various studies concluded that customer involvement, social media marketing strategies, customer benefits, and customer trust and commitment are the drivers of customer engagement. In Agri-marketing, trust and commitment are the factors that primarily contribute to moulding customer engagement. Therefore, the company dealing with Agri-products must initially put efforts into accomplishing trust from the customer's side. These efforts eventually should advance to develop an emotional commitment to the brand while creating a sustainable strategy.

Loyal customers could be regarded as an asset to the company, and satisfied customers eventually transform into loyal customers of the company. Customer choices, expectations, and perceptions keep changing in a highly competitive environment. A company should therefore focus on continuously improving its marketing strategies to keep the customer engaged and enhance customer interaction and relationship with the company to survive in today's turbulent environment.

Conclusion

The study intended to understand the concept of customer engagement in terms of its antecedents and consequences. The conceptual research reviewed 32 publications from

various sources and proposed the enablers of customer engagement. Customer involvement in brand decisions, promotional strategies, activities, etc., could improve customer engagement. This was termed one of the strong antecedents of the variable in concern. Trust and commitment from the customer's side keep them in touch with the brand/company. The customer experienced pleasure, excitement, etc., only wishes to remain engaged with the brand or company. Social media marketing is a tactic developed with the advancement of technology. With 4.62 billion of the world population using the platform, it is crucial to frame apt strategies for the specific customer as individuals wish to be treated special. In such cases, big data analysis and search engine optimisation tactics could be employed.

Customer engagement eventually turns the customers into satisfied, loyal customers of the company, which turn out to be a long-term asset. With short shelf-lives for products, and technical advantages like social media, digital marketing, the internet of things, etc., agribusiness attracts customers and a relationship between the producer and the customer benefits both parties.

It is difficult and risky to satisfy customers in today's technological world. An empirical study with the conceptual model could better understand the current scenario.

References

- Abou-Shouk, M., &Soliman, M. (2021). The impact of gamification adoption intention on brand awareness and loyalty in tourism: the mediating effect of customer engagement. *Journal of Destination Marketing & Management*, 20, 100559.
- Abror, A., Wardi, Y., Trinanda, O., &Patrisia, D. (2019). The impact of Halal tourism, customer engagement on satisfaction: moderating effect of religiosity. *Asia Pacific Journal of Tourism Research*, 24(7), 633-643.
- Agyei, J., Sun, S., Penney, E. K., Abrokwah, E., &Ofori-Boafo, R. (2021). Linking CSR and customer engagement: the role of customer-brand identification and customer satisfaction. *Sage Open*, 11(3), 21582440211040113.
- Backes, J., Begonha, D., &Schaubroeck, R. (2020). *Rules of engagement: Winning with the basics in digital telecommunications*. <https://www.mckinsey.com>. Retrieved 16 July 2022.
- Balio, S., &Casais, B. (2021). A content marketing framework to analyse customer engagement on social media. In *Research Anthology on Strategies for Using Social Media as a Service and Tool in Business*. IGI Global. 320-336
- De Oliveira Santini, F., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., &Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. *Journal of the Academy of Marketing Science*, 48(6), 1211-1228.
- Digital 2022: Global Overview Report, (2022) <https://datareportal.com/reports/digital-2022-global-overview-report> retrieved on 13 July 2022
- Farook, F. S., &Abeysekara, N. (2016). Influence of social media marketing on customer engagement. *International Journal of Business and Management Invention*, 5(12), 115-125
- Gosain, A., Srivastava, M., & Gupta, D. (2019). Antecedents to Customer Engagement: Moderating Role of Media Richness of Brand Pages. *Theoretical Economics Letters*, 9(7), 2550-2565
- Gummerus, J., Liljander, V., Weman, E., &Pihlström, M. (2012). Customer engagement in a Facebook brand community. *Management Research Review*. 35 (9), 857-877.
- Harrigan, P., Evers, U., Miles, M. P., & Daly, T. (2017). Customer engagement and the relationship between involvement, engagement, self-brand connection and brand usage intent. *Journal of Business Research*, 88, 388-396.

- Husnain, M., & Toor, A. (2017). The impact of social network marketing on consumer purchase intention in Pakistan: Consumer engagement as a mediator. *Asian Journal of Business and Accounting*, 10(1), 167-199
- Jarvi, H. (2018). *Customer engagement, a friend or a foe? Investigating the relationship between customer engagement and value co-destruction*. [Doctoral thesis submitted to the Lappeenranta University of Technology, Lappeenranta, Finland]. p. 117
- Katz, E. (1974). Utilisation of mass communication by the individual. The uses of mass communications: Current perspectives on gratifications research, 19-32.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. The public opinion quarterly, 37(4), 509-523.
- Liu, X., Shin, H., & Burns, A. C. (2021). Examining the impact of luxury brand's social media marketing on customer engagement: Using big data analytics and natural language processing. *Journal of Business Research*, 125, 815-826.
- Matosas-López, L., & Romero-Ania, A. (2021). How to Improve Customer Engagement in Social Networks: A Study of Spanish Brands in the Automotive Industry. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(7), 3269-3281
- Sashi, C. M. (2012). Customer engagement, buyer-seller relationships, and social media. *Management decision*, 50 (2), 253-272.
- Sofiyah, F. R. Yulinda & Muda, I. (2018). The Efforts of Small Medium Enterprises (SMEs) Customer Engagement in Improving Customer Relationship Through Social Media Development. *International Journal of Civil Engineering and Technology*, 9(9), 642-657.
- Tourchian, A., Aali, S., Sanoubar, N., & Zendeh, A. B. (2022). Exploring customer engagement value from relationship benefits. *International Journal of Islamic and Middle Eastern Finance and Management*. <https://doi.org/10.1108/IMEFM-12-2020-0603>
- Van Tonder, E., & Petzer, D. J. (2018). The interrelationships between relationship marketing constructs and customer engagement dimensions. *The Service Industries Journal*, 38(13-14), 948-973.
- Verhagen, Tibert; Swen, Erik; Feldberg, Frans; Merikivi, Jani (2015). Benefitting from virtual customer environments: An empirical study of customer engagement. *Computers in Human Behavior*, 48, 340–357. doi:10.1016/j.chb.2015.01.061
- Vinerean, S., & Opreana, A. (2021). Measuring customer engagement in social media marketing: A higher-order model. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(7), 2633-2654
- Vivek, S. D. (2009). *A Scale of Consumer Engagement*. [Doctoral thesis submitted to The University of Alabama, Tuscaloosa, Alabama]. p. 233
- Vohra, A., & Bhardwaj, N. (2019). Customer engagement in an e-commerce brand community: An empirical comparison of alternate models. *Journal of Research in Interactive Marketing*, 13(1), 2-25. <https://doi.org/10.1108/JRIM-01-2018-0003>
- Zaid, S., & Patwayati, P. (2021). Impact of customer experience and customer engagement on satisfaction and loyalty: A case study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(4), 983-992.

A STUDY ON THE FACTORS AFFECTING THE CONSUMER BEHAVIOR WITH SPECIAL REFERENCE TO BRANDED JEWELLERY CONSUMERS IN KERALA

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Abstract

The study is based on customers of branded jewelries in the jewelry market in Kerala. The main goal of this study is to identify the various factors that influence the consumer behavior of branded jewellery consumers in Kerala. This study attempts to identify the major demographic and hedonic factors that influence the purchasing of jewelry ornaments and examines how these factors affect consumer's purchase decisions. Non probability sampling method were adopted for the sample selection and the respondents of the study are branded jewellery consumers. The study found that age, income and gender are significant factors influencing the branded jewellery consumers. In addition, the study found that hedonic factors have high influence on the purchasing behavior of the branded jewellery consumers.

Keywords: *Branded Jewellery, Hedonic factors, Consumer Behavior*

Introduction

Jewellery has an inextricable connection with the lifestyle of the Indian people. Therefore, India is one of the most dominant jewellery markets in the world (Ahmed, 2014). South Indian states are the popular centres of the jewellery market in India. South Indian states own a large share of the jewellery market (Jørgensen, 2012). Among the South Indian states, Kerala tops in the jewellery market (Joseph, 2014). Because of this, in India, the highest consumption of gold is in Kerala (Pathy et al., 2021). In marketing, gold/silver/platinum jewellery is categorized as specialty goods. Some studies have included jewellery in the category of luxury goods. This classification has been used in different studies depending on the changing price range of the product. However, it is argued that the consumer behaviour factors of the jewellery market are fundamentally similar to the consumer behaviour factors of specialty goods (Balaji and Maheswari, 2014).

This study examines the determinants of the buyer behaviour of consumers of branded jewellery, which is a niche market. The respondents of this study are the customers of selected branded jewellery shops in three important metro cities of Kerala, namely Thiruvananthapuram, Kochi, and Kozhikode. The primary data for the study has been collected through the interview schedule method. Also, secondary data has been collected for this study from journals, reports, and web sources.

Statement of the Problem

This study examines the important factors influencing consumers' buying behaviour toward branded jewellery. Hedonic factors are one of the important factors affecting the consumer behaviour of jewellery, as detailed in various previous works of literature. This study examines whether this hedonic factor influences the buying behaviour of branded jewellery consumers in Kerala and how the demographic factors of branded jewellery consumers influence their consumer behaviour characteristics.

Significance of the Study

Consumer behaviour in the jewellery market is a combination of beliefs, customs, gender differences, family roles, economic factors, and lifestyle. In the context of Kerala, no authentic previous studies have been conducted on the consumer behaviour characteristics

among branded jewellery consumers. Hence this study helps to add new knowledge to the realm on consumer behaviour. In addition, the findings in this study are helpful for the new entrepreneurs who plan to start their business in the jewellery industry in a sense they can better understand the consumer characteristics.

Scope of the Study

The study is conducted among 384 consumers of top three branded jewellery stores in Trivandrum, Kochi and Kozhikode. The study aims to examine the influence of the demographic factors in consumer behaviour of branded jewellery stores. In addition, the study aims to examine the role of hedonic factors in determining the consumer behaviour of branded jewellery consumers. Aspects related to their purchasing characteristics are mainly covered in this study.

Objectives of the Study

1. To examine the role of demographic factors in the purchasing characteristics of the branded jewellery consumers in Kerala.
2. To assess the role of hedonic factors in the consumer behaviour of branded jewellery consumers in Kerala.

Hypothesis of the Study

H₀: There is no significant difference in type of jewellery preferred according to age group.

H₀₁: There is no significant difference in purchase frequency according to the income.

H₀₂: There is no significant difference in Hedonic factors according to the gender.

Research Design

Database Design:

The secondary data were collected from those articles that detail consumer behaviour, jewellery buying behaviour, branded jewellery purchasing, and specialty goods purchasing. The primary data for this study were collected through a structured questionnaire. Primary data was collected from the branded jewellery consumers in Trivandrum, Kochi, and Kozhikode. Scheduled interview method used for collecting primary data from the consumers.

Sampling Design

Multistage convenience sampling method were adopted for the study. A total of 384 samples were selected for the study. Three branded jewellery stores, namely Joy Alukkas, Malabar Gold and Kalyan Jewellers from southern, northern and central region of Kerala were chosen for the study. 128 respondents from each jewellery store were selected for the study.

Statistical Design

Cross tabulation was used for the descriptive study. For testing the hypothesis, since the data is collected through non probability sampling method non-parametric test were used for the study. Man-Whitney u Test and Kruskal Wallis test was used for the analysis. Chi-Square test was also done.

Discussion and Analysis

Objective 1: To examine the role of demographic factors in the purchasing characteristics of the branded jewellery consumers in Kerala.

Variables for Objective 1

Dependent Variables: Type of Jewellery Preferred, Purchase Frequency, **Independent Variables:** Age, Income.

Table 1: Cross Tabulation- Type of Jewellery Preferred and Age Group

Type of Jewellery Preferred * Age of the Respondent Crosstabulation							
			Age of the Respondent				Total
			18-30	31-45	45-60	61-100	

Type of Jewellery preferred	Traditional Designs	Count	16	32	63	13	124
		% Within type of Jewellery preferred	12.9%	25.8%	50.8%	10.5%	100.0%
		% Within Age of the Respondent	13.7%	17.3%	91.3%	100.0%	32.3%
	Cotemporary Designs	Count	101	153	6	0	260
		% Within most type of Jewellery preferred	38.8%	58.8%	2.3%	.0%	100.0%
		% Within Age of the Respondent	86.3%	82.7%	8.7%	.0%	67.7%
Total	Count	117	185	69	13	384	
	% Within most type of Jewellery preferred	30.5%	48.2%	18.0%	3.4%	100.0%	
	% Within Age of the Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	

Interpretation

From the table 1 it can be interpreted that among the total 384 respondents , 124 respondents i.e., 32.3% of the respondents preferer traditional type of designs while purchasing from branded jewellery, were 260 respondents , i.e., 67.7 % of the respondents preferred cotemporary designs while purchase from branded jewellery. Among the respondents who preferred traditional design, 16 respondents, i.e., 12.9 % of the respondents belongs to the ag category of 18-30, 25.8 % respondents belong to 31 to 45 age category, 50.8 % belongs to 45-60 age category, 10.5 % respondents belong to 61-100 age category. Among the consumers who preferred traditional designs , 38.8 % , i.e., 101respondents belongs to 18-30 age group, 58.8% , i.e., 153 respondents belong to 31-45 age category, 2.3% , i.e., 6 respondents belong to 46-60 age group and zero respondents belongs to 61-100 age category who preferred cotemporary design.

Table 2: Cross Tabulation- Purchase Frequency and Income

frequency of jewellery purchase * Income of the respondent Crosstabulation						
			Income of the respondent			Total
			LESS THAN 100000	100000 TO 250000	250000 TO 500000	
frequency of jewellery purchase	once in an year	Count	17	85	14	116
		% within frequency of jewellery purchase	14.7%	73.3%	12.1%	100.0%
		% Within Income of the respondent	38.6%	31.2%	20.6%	30.2%
		% of Total	4.4%	22.1%	3.6%	30.2%
	twice in an year	Count	0	19	27	46

		% within frequency of jewellery purchase	.0%	41.3%	58.7%	100.0%
		% within Income of the respondent	.0%	7.0%	39.7%	12.0%
		% of Total	.0%	4.9%	7.0%	12.0%
	once in two year	Count	0	1	0	1
		% within frequency of jewellery purchase	.0%	100.0%	.0%	100.0%
		% within Income of the respondent	.0%	.4%	.0%	.3%
		% of Total	.0%	.3%	.0%	.3%
	on special occasions	Count	27	158	10	195
		% within frequency of jewellery purchase	13.8%	81.0%	5.1%	100.0%
		% within Income of the respondent	61.4%	58.1%	14.7%	50.8%
		% of Total	7.0%	41.1%	2.6%	50.8%
	WHEN GOLD PRICE FALLS	Count	0	9	17	26
		% within frequency of jewellery purchase	.0%	34.6%	65.4%	100.0%
		% within Income of the respondent	.0%	3.3%	25.0%	6.8%
		% of Total	.0%	2.3%	4.4%	6.8%
Total		Count	44	272	68	384
		% within frequency of jewellery purchase	11.5%	70.8%	17.7%	100.0%
		% within Income of the respondent	100.0%	100.0%	100.0%	100.0%
		% of Total	11.5%	70.8%	17.7%	100.0%

Interpretation

From the table 2 , it can be interpreted that 30.2% of the respondents, i.e., 116 respondents buy jewellery once in an year, 46 respondents, i.e., 12.0% respondents buy jewellery twice in an year, 1 respondent i.e., 3% respondents buys once in two year, 195 respondents, i.e., 50.8% respondents buys only on special occasion, 26 respondents, i.e., 6.8% respondents buys jewellery from branded shops when the price of gold falls.

Hypothesis 1

H₀: There is no significance difference in type of jewellery preferred according to age group.

H₁: There is a significant difference in type of jewellery preferred according to age group.

Table 3: Chi Square Test Statistics

Test Statistics		
	most preferred type of wearing	Age of the Respondent
Chi-Square	48.167 ^a	166.458 ^b
df	1	3
Asymp. Sig.	.000	.000

Inference

From the above Chi-Square analysis, it can be understood that the p value is .000 which is less than 0.05. Hence the null hypothesis failed to accept. From the table it can be inferred that there is a significant difference in the type of jewellery preferred according to the age group of the respondents at 5% level of significance.

Hypothesis 2

H₀: There is no significant difference in purchase frequency according to the income.

H₁: There is no significant difference in purchase frequency according to the income.

Test Statistics		
	frequency of jewellery purchase	Income of the respondent
Chi-Square	322.693 ^a	245.250 ^b
df	4	2
Asymp. Sig.	.000	.000

Inference

From the above Chi-Square analysis, it can be understood that the p value is .000 which is less than 0.05. Hence the null hypothesis failed to accept. From the table it can be inferred that there is a significant difference in the frequency of jewellery purchase according to the income group of the respondents at 5% level of significance.

Objective 2: To assess the role of hedonic factors in the consumer behaviour of branded jewellery consumers in Kerala.

Variables for Objective 2

Dependent Variables: Hedonic factors, **Independent Variables:** Gender

Hedonic factors are composed of two sub factors such as – pleasure factors and recognition seeking factors.

Table 5: Pleasure seeking factors- Descriptive Statistics

Descriptive Statistics					
Pleasure seeking factors	N	Minimum	Maximum	Mean	Std. Deviation
buying jewellery from a branded retailer is stimulating	384	2.00	5.00	4.4193	.58595
buying jewellery from a branded retailer is thrilling experience	384	3.00	5.00	4.2578	.50449
buying jewellery from branded retailer is an exciting experience	384	3.00	5.00	4.2031	.47976

I would like to purchase from branded retailer because it provides ambiance for family shopping	384	2.00	5.00	4.2943	.74355
buying jewellery from branded retailer increases my satisfaction	384	2.00	5.00	4.6641	.53995
buying jewellery from branded retailer increases myself proud	384	3.00	5.00	4.1849	.59122
Valid N (listwise)	384				
Pleasure seeking factors	384	3.17	5.00	4.3372	.32572

From the table 5, it can be interpreted that the mean value for pleasure seeking factors is 4.3372. This mean value indicates that the respondents are opined that the importance of pleasure-seeking factors while purchasing from a branded retail shop is high.

Table 6: Recognition seeking factors- descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
i believe that purchase made from branded jewelleries helps to get recognition from the family members	384	3.00	5.00	4.2448	.45985
i would like to purchase jewellery from branded retailer because i expect recognition from my friends	384	3.00	5.00	4.2448	.53345
i would like to purchase jewellery from branded retailer i expect recognition from my colleagues	384	2.00	5.00	3.9740	.77786
i would like to purchase from branded retailer because i expect recognition from my relatives	384	2.00	5.00	4.0495	.74760
Valid N (listwise)	384	3.00	5.00	4.1283	.42520

From the table 6, it can be interpreted that the mean value for recognition seeking factors is 4.1283. This mean value indicates that the respondents are opined that the importance of recognition-seeking factors while purchasing from a branded retail shop is high.

Table 7: Hedonic Motivating factors – Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation

Hedonic Motivation	384	3.21	5.00	4.2327	.32097
Valid N (listwise)	384				

From the table 7, it can be interpreted that the mean value for hedonic factors is 4.2327. This mean value indicates that the respondents are opined that the importance of hedonic factors while purchasing from a branded retail shop is high.

Hypothesis 3

H0₃: There is no significant difference in Hedonic factors according to the Gender.

H3: There is significant difference in Hedonic factors according to the Gender

Table 8: Man-Whitney U Test Statistic- Hedonic Motivation and Gender

Test Statistics	
	Hedonic motivation
Mann-Whitney U	12264.000
Wilcoxon W	30792.000
Z	-5.679
Asymp. Sig. (2-tailed)	.000
a. Grouping Variable: Gender of the respondent	

From the table 9, it can be seen that the P value is .000, which is less than 0.05. Hence the null hypothesis failed to accept. It can be inferred that there is a significant difference in hedonic factors according to the gender of the respondent at 5% level of significance. From the table 8 it is evident that the hedonic factors are high for female consumers.

Findings

1. Age is a significant factor in deciding the consumer choice regarding the type of jewellery. The study reveals that age group belongs to 45 above are preferring traditional type of designs where the young customer group less than 45 years of age prefer modern type designs. This is because the old generation consumers are more attracted towards traditional cultural styles and fashion, where the young generation is more attracted to trendy designs.
2. Income is a significant factor deciding the purchasing frequency of jewellery among branded jewellery consumers. However, the majority of the consumers opined that they prefer to buy from branded jewellery when a special occasion comes. Higher income group also shows high purchasing frequency. This is because they consider gold as an investment option. They like to invest a portion of their income in jewellery.
3. Hedonic factors are composed of two subset of factors- such as pleasure-seeking factors and recognition factors. In the pleasure-seeking factors, the highest mean value is shown for level of satisfaction they enjoy when purchase from a branded retailer. It is followed by the factor that they experience a stimulating feeling while making a purchase from a branded retailer shop.
4. Among the factors of recognition, the highest mean value is noted for recognition from family and friends. This shows that the consumers choose a branded retailer seller than a local jewellery because they expect recognition from others for their choice of purchase. Also, hedonic factor is significantly different according to gender.

5. Overall, the mean value of hedonic factors shows that the hedonic factors have high influence as a motivating factor among the branded jewellery consumers.

Conclusion

A study on the consumer behaviour of branded jewellery customers in Kerala has been done here. This study was conducted by selecting customers from three branded jewellers from three zones in Kerala. Mainly it is clear from this study that age, income, and gender are the significant factors influencing the branded jewellery market in Kerala. This study confirms that the purchasing behaviour of the consumers is different according to the changes in these demographic factors. This study reveals that a set of factors known as hedonic factors highly influence the consumer behaviour of branded jewellery consumers in Kerala. The findings of this study are in consistent with the results from the previous literature (Chitradevi., 2017, Dayana., 2014). This study is helpful for new entrepreneurs who want to enter into the specialty goods market, especially the jewellery market.

References

- Ahmed, S. (2014). Tata GoldPlus. *Advances in Marketing, Customer Relationship Management, and E-Services*, 241–257. <https://doi.org/10.4018/978-1-4666-4357-4.ch020>
- Balaji, K., & Maheshwari, R. (2014). A Paradigm Shift in the Buying Behaviour of Indians towards Gold Jewellery—A Theoretical Approach with Reference to the Growth of Branded Retailers. *The Global Journals*, 4, 2.
- Chitradevi, T. (2017). A study on consumer behaviour towards jewellery products in Tiruchirappalli district. *International Journal of Applied Research*, 3(1), 853-857.
- DayanaSajjanan, K. R. (2014). Perception Of Consumers Towards Branded Jewellery Products Of Malabar Gold In Thiruvananthapuram City. *Journal Impact Factor*, 5(6), 10-20.
- Jørgensen, J. A. (2012). Golden Moments: The Role of Jewellery in South Indian Pentecostalism. *Ethnos*, 77(4), 518–534. <https://doi.org/10.1080/00141844.2011.609940>
- K Joseph, Dr. J. (2014). CONSUMER BEHAVIOUR IN THE GOLD JEWELLERY MARKET OF KERALA. *International Journal of Business and Administration Research Review*, 1(6), 86–91.
- Pathy, G. S., Ramanathan, H. N., & Iyer, E. (2021). MEASUREMENT OF BUYING ROLES IN FAMILY DECISION-MAKING PROCESS FOR GOLD JEWELLERY USING CORRESPONDENCE ANALYSIS GIRISH S PATHY, HAREESH N RAMANATHAN, EASWARAN IYER. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 18(6), 126–146.

SYSTEMATIC FRAMEWORK FOR SUSTAINABLE RECYCLING OF DISPOSED VEHICLE BATTERIES

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Abstract— Lead-acid batteries are rechargeable batteries which are used in electric vehicles, the main reason is because of its high energy density. The batteries are recyclable and precious but because of economic, technical and other factors less than 5% are recyclable today. By the end of 2030 it is estimated that 2 million metric tonne will be disposed per year all over the world. In India currently there are no methods implemented for the extraction of nickel and cobalt from lithium ion battery so as to reuse it. Rather than that these are mined to make new Lead-acid batteries. Mining of these metals causes many environmental and health hazards such as pollution in water, degradation in the ecosystem, problems in respiratory system etc. The main aim is to formulate a mathematical model for sustainable production of recycled Lead-acid batteries by extraction of these metals from disposed Lead acid batteries in Indian context. For this study data is collected from literature survey and internet sources.

Keywords - *Sustainability, Lead-acid battery, Indian context, Nickel, Cobalt*

I. Introduction

The practise of gathering and aggregating products, components, or materials at the end of their useful lives for reuse, recycling, or returns is known as sustainable reverse logistics. The integration of green concepts and sustainability is still a work in progress. Researchers are becoming more interested in reverse logistics network design with numerous purposes, in addition to sustainability. When combined in-additional goals such as social, customer satisfaction, and improving service performance, the cost function of the model can be optimized, resulting in more resilient and sustainable network architecture. Reverse logistics is gathering items and arranging transportation so that they're being remanufactured, reused, or recycled. The three main elements of a sustainable supply chain are; Economic – This is related to supply chain profitability, that's where most businesses have focused their efforts. Profitability is primarily cost reduction from the viewpoint of the supply chain. Environmental – The effect of all the many processes and activities on the environment. It is undeniably difficult to measure the environmental impact, and very little study has been done in this field. Social – Companies should not just focus on obtaining economic and environmental advantages, but also on producing social benefits. Reverse Logistics is a vital aspect of any Supply Chain (SC) (RL). "The process of planning, implementing, and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods, and related information from the point of consumption to the point of origin for recapturing value or proper disposal," according to the definition of reverse logistics.

The activities of remanufacturing and refurbishment may also be included in the notion of reverse logistics." In most places, it is illegal to discard lead-acid batteries, and many governments mandate a financial donation as an encouragement for consumers to return them. The majority of old Pb-acid batteries are retrieved when purchasing new ones. Expired batteries can occasionally be returned to the manufacturer through back-haul (in the US but not in Europe), saving money on transportation. Batteries are also removed from

vehicles that's been out of operation and therefore are shredded in accordance with the legislation. Batteries are subjected to current and well-understood transportation and processing rules. The lead– acid battery elements are recycled using a simple technique. Once the battery case is ripped open, the sulfuric acid electrolytes is discharged and collected. The plates or connectors may now be extracted from the case and retrieved. Alternatively, the exhausted battery can be sent to a drop hammer for size reduction and sink-float separation of the plastic and lead. New battery components are made from remelted and refined lead (a low-melting metal). Environmental Protection Agency regulates lead and sulphur pollution produced by secondary smelting. New cases are made from the melted plastic. The acid might be neutralised or converted to sulphate salts for a variety of uses, including soap production. There is minimal motivation to export to countries with less severe regulations because recycled lead (which has been cleansed and converted to its ionic form) is deemed of excellent quality, yet some batteries may make their way to Mexico. New lead is preferred by some battery producers over recycled lead.

II. LITERATURE REVIEW

Gaines et al [1] made a numerical example based on an online clothing retailer is used to validate the concept. It assists managers in determining the number of facility stores and storehouses that must be opened and operated, as well as the technology that must be implemented for a more effective method of product transportation and processing. The study examines what efforts may be made right now to reduce obstacles to recycling and guarantee that cost- effective and ecologically friendly options are available when a battery's useful life has expired. Dutta P et al [2] commented that For efficient Li–ion recycling, preventing Pb–acid batteries from entering the input stream is also crucial. The acid could react with the electrode substrates, as well as the presence of lead could make the recycler subject to additional hazardous-material regulations. Without a doubt, any approach in battery recycling must avoid cross contamination. This is something that both the Society of Automotive Engineers in the U.s and EUROBAT in Eu are working on. Both organizations have task teams working to better understand and address the issues of battery cross-contamination during recycling.

Yang et al [3] The circular economy includes the creation of networks for the use and recycling of batteries. Continued along the current linear route will still not makes the battery business more sustainable, no matter how great the technologies has become. Regardless of the fact that the circular economy (CE) theory isn't quite new and has been studied by a number of researchers and academics, it has yet to be put into practise. The condition will not change . Prazanova et al [4] commented on Another method of recycling is the direct recycling procedure. For battery separation, this technique is made up of a number of physical and chemical phases with minimal temperature and energy needs. As a result, the technique should be less expensive than hydrometallurgical leaching. Furthermore, the process efficiency must be greater than 95%, as well as the quality of therecovered materials must be comparable to that of metallurgical methods.

With the introduction of electric automobiles that use batteries primary energy storage systems, the market of lithium batteries in particular is growing, which means that a large number of lithium batteries will inevitably end up in the waste, recycling, and reused stream. If not handled properly, it will surely have a harmful effect to the environment and resources. Transition metal oxides & phosphates, Al, Cu, graphite, & organic electrolytes including toxic lithium salts, as well as other compounds are found in most commercialized lithium ion batteries. As a result, an increasing number of scientists are concentrating their efforts on the

recycling of spent lithium ion batteries. However, due to the high energy density, greater safety, and low cost of lithium ion batteries, recycling spent lithium ion batteries is difficult.

The most recent breakthroughs in scrap lithium ion battery recycling technologies, covering recovery procedures and products development. The challenges are highlighted, as well as possible economic and application prospects. The majority of the recycling methods discussed above are aimed at repurposing resources from discarded LIBs. The recycling process, on the other hand, progresses differently due to different technological issues and economic benefits. Pyrometallurgy, for example, has developed in prominence as a simple and efficient way of recovering Co, the most precious metal in discarded LIBs. The amount of Co in electrode materials reduces as battery technology advances, while the use of Ni and manganese grows. Furthermore, since the Evs market has exploded in latest days, LIB consumption has skyrocketed, and Li stocks have become a big concern. Moreover, since LIB recovery was in its early phases, current research & industrial development rates will be unable to achieve the ideal recovery, which includes safety, low cost, lower power consumption, and also no pollution. As a result, additional research and investment will be required. To enhance LIB recycling technology, the following items should be addressed: (1) clearly categorise LIBs according the type of electrode; (2) construct batteries in a way that they can be easily recharged; and (3) work collaboratively upon that reconstruction of spent LIBs & relevant statutory activity all around world [5].

Technology must be designed to support a resource-efficient and economically viable lithium-ion battery recycling system, securing the supply of component materials in the future. Lithium-ion batteries are complex items with changing materials and design, making recovery planning more challenging in the future. There have been several recycling methods invented or implemented, each with a combination of advantages and disadvantages. On a technical and economic level, this study investigates numerous approaches, finding variances in benefits as a result of cathode composition. Because none of the current techniques are flawless, it is suggested that researchers focus on areas that might contribute to the advancement of new recycling technologies. One of most promising research disciplines is separation technology. Lithium-ion batteries are hard to recycle in an environmentally friendly manner. These are smart and varied products with a design that is always evolving. Their recycling would improve the environment and, preferably, the economy, but none of the different ways for recycling materials is perfect; each one has its own set of disadvantages and benefits. We've proposed certain research directions in this paper that could result in better recycling technology, so that if and when large numbers of electric cars are created, we'll know what to do with the cells once they're no longer functioning. The most effective research area appears to be material separation technologies on various scales. Design for recycling is another important breakthrough that could improve the prospects for recycling.[6].

Because of the rising costs of pyrometallurgical lead extraction, the consequent CO₂ emissions, and the terrible health effects that lead poisoning from high levels of lead-to-air emissions, there is a growing need to find new technologies to recover lead from end-of-life lead-acid batteries. To address these concerns, we are creating an ionometallurgical process that will eventually replace the millennia-old pyrometallurgical technique. The suggested method comprises dissolving Pb ions in Ethaline 200, a deep eutectic solvent (DES) produced when chloride & ethylene glycol were combined in a 1: 2 molar ratio. After the Pb has been dissolved, it can be recovered by electrodeposition, and the liquid can be recycled for further Pb recycling. To begin, DESs are being used to dissolve various lead compounds (PbCO₃, PbO, PbO₂, as well as PbSO₄), and the solubilities of these compounds are determined by inductively coupled plasma optical emission spectrometry (ICP-OES). The resulting Pb²⁺

species is then reduced & electrodeposited into elemental lead there at cathode of the an electrochemical cell; cyclic voltammetry & chronoamperometry are used to investigate the electrodeposition behaviour & process. The electrically deposited layers were examined using scanning electron microscopy (SEM) & X-ray photoelectron spectroscopy (XPS). The ramifications and opportunities of such processes are discussed. With the rising popularity of the LABs as well as the serious health consequences of lead poisoning, it's more crucial than ever to have a safe and effective recycling system in place. While LAB recovery is effective, current methods use on an energy-intensive and sometimes dangerous smelting process. End-of-pipe treatment is required to reduce safety hazards and contamination of the environment. To reduce safety risks and environmental contamination, end- of-pipe treatment is required. Because informal recycling processes perform and there are fewer environmental and safety laws in place in LMICs, the health consequences are severe, resulting in LAB recycling being named the world's most polluting industrial operation. The use of hydrometallurgical methodologies, in which the smelting operation is replaced with one where the Pb-containing salts have been treated in solution, reduces pollutant discharge. Hydrometallurgical techniques often rely on using strong acids for solvate large amounts of lead. DESs promise equivalent processing capability to traditional procedures while being made of environmentally friendly materials due to their unique features.

III. Methodology

There are mainly 4 lead acid battery recycling plant present in kerala, Best smelters in Palakkad, T S refineries in Kasargod, Peejay enterprises in Thiruvalla and Perfect Alloy plant in Alappuzha. Required data can be collected from these plants. It includes Transportation cost, Labour cost, Processing cost, Machine installation cost, Purchase cost, Power utility cost and Maintenance cost. Extensive research is done also through literature survey. Objective functions for optimization is found out. After the formulation of mathematical model CPLEX software is used for optimization the model. For optimizing the model first the algorithm is programmed in CPLEX software and the data collected are inputted into programme. CPLEX Optimizer's mathematical programming engine offers decision optimization for increased efficiency, cost reduction, and profitability. CPLEX software assists in better decision-making by identifying the best answer. The following figure shows the stages in the methodology.

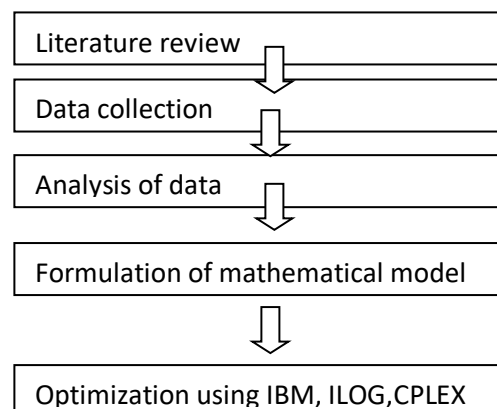


Figure 3.1 – Stages of Methodology

IV. FORMULATION OF MATHEMATICAL MODEL

Objective functions for modelling

1. Minimization of economic aspect.

Cost reduction in operational process transportation cost, Labour cost, Processing cost, Machine installation cost, Purchase cost, Power utility cost and Maintenance cost.

2. Minimizing the environmental aspect.

Hazards to the environment are reduced. After use, lead acid batteries are discarded into the environment, posing a threat to the ecosystem and aquatic life. So, if batteries are recycled, there will be a reduction in the dumping of these batteries, and thus pollution will be reduced.

3. Maximization of Social responsibility.

Increase the number of job opportunities and The number of work lost days due to workplace injuries will be taken into account.

V. OPTIMIZATION USING IBM, ILOG, CPLEX SOFTWARES

After the formulation of mathematical model CPLEX software is used for optimization the model. For optimizing the model first the algorithm is programmed in CPLEX software and the data collected are inputted into programme. CPLEX Optimizer's mathematical programming engine offers decision optimization for increased efficiency, cost reduction, and profitability. CPLEX software assists in better decision-making by identifying the best optimized solution as result.

VI. Results and discussion

With the introduction of electric automobiles that use batteries primary energy storage systems, the market of lithium batteries in particular is growing, which means that a large number of lithium batteries will inevitably end up in the waste, recycling, and reused stream. If not handled properly, it will surely have a harmful effect to the environment and resources. Transition metal oxides & phosphates, Al, Cu, graphite, & organic electrolytes including toxic lithium salts, as well as other compounds are found in most commercialized lithium ion batteries. As a result, an increasing number of scientists are concentrating their efforts on the recycling of spent lithium ion batteries. However, due to the high energy density, greater safety, and low cost of lithium ion batteries, recycling spent lithium ion batteries is difficult. The most recent breakthroughs in scrap lithium ion battery recycling technologies, covering recovery procedures and products development. The challenges are highlighted, as well as possible economic and application prospects. The majority of the recycling methods discussed above are aimed at repurposing resources from discarded LIBs. The recycling process, on the other hand, progresses differently due to different technological issues and economic benefits. The mathematical model is formulated for the sustainable recycling of vehicle batteries. Optimization of sustainability of recycling vehicle batteries using theselected softwares is done.

VII. CONCLUSION

Technology must be designed to support a resource-efficient and economically viable Lead-acid battery recycling system, securing the supply of component materials in the future. Lead-acid batteries are complex items with changing materials and design, making recovery planning more challenging in the future. There have been several recycling methods invented or implemented, each with a combination of advantages and disadvantages. On a technical

and economic level, this study investigates numerous approaches, finding variances in benefits as a result of cathode composition. Because none of the current techniques are flawless, it is suggested that researchers focus on areas that might contribute to the advancement of new recycling technologies. One of most promising research disciplines is separation technology. With the introduction of this technology more and more implementation of the same will occur which result in the overall improvement in the performance.

References

- Gaines, L. (2014). "The future of automotive Lead-acidbattery recycling: Charting a sustainable course". *Sustainable Materials and Technologies*, 1–2, 2–7. <https://doi.org/10.1016/j.susmat.2014.10.001>
- Dutta, P., Mishra, A., Khandelwal, S., & Kathawala, I. (2020). "A multiobjective optimization model for sustainable reverse logistics in Indian E-commerce market". *Journal of Cleaner Production*, 249, 119348. <https://doi.org/10.1016/j.jclepro.2019.119348>
- Yang, Y., Okonkwo, E. G., Huang, G., Xu, S., Sun, W., & He, Y. (2021). "On the sustainability of lithium ion battery industry – A review and perspective". *Energy Storage Materials*, 36, 186–212. <https://doi.org/10.1016/j.ensm.2020.12.019>
- Ballantyne, A. D., Hallett, J. P., Riley, D. J., Shah, N., & Payne, D. J. (2018). *Lead acid battery recycling for the twenty-first century*. *Royal Society Open Science*, 5(5), 171368. <https://doi.org/10.1098/rsos.171368>

ENTREPRENEURSHIP –THE ENGINE OF TRANSFORMING WOMEN

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ABSTRACT

Female entrepreneurs represent the fastest growing category of entrepreneurship worldwide and Women entrepreneurship is closely intertwined with instrumental societal and economic benefits. Women constitute nearly half of the population in India, their participation in entrepreneurial activities remains severely limited. The study is an attempt to Review the recent transformation of women entrepreneurship in India, so the study aims at analyzing the prevalence of women entrepreneurship in India. The criteria for selecting the existing research on the topic included highly cited research studies on Women entrepreneurship specifically in the Indian context. Most recent research studies available on Google Scholar and EBSCO have been selected for the purpose of review. Women entrepreneurs are a heterogeneous segment belonging to different age groups and demographic background. Entrepreneurial activity is quite low in India and is mostly concentrated in states of Tamil Nadu, Kerala, Andhra Pradesh, West Bengal and Maharashtra. There is an urgent need to decode policy imperatives and interventions that can boost an favorable environment for women entrepreneurs in India.

Keywords: Women entrepreneurship, Transformation, India

Introduction

“One of the biggest growth markets in the world may surprise you. You’ve heard about the opportunities opening up in countries like China, regions like Asia and industries like green technology. But one major emerging market hasn’t received the attention it deserves: women.”

Hillary Clinton

Entrepreneurship is an area of research that has been of immense interest to researchers, academicians and policy makers. The women’s entrepreneurship has been recognized during the last decade as an important untapped source of economic growth. Women entrepreneurs create new jobs for themselves and others and by being different also provide society with different solutions to management, organisation and business problems as well as to the exploitation of entrepreneurial opportunities. However, they still represent a minority of all entrepreneurs. Women’s entrepreneurship is both about women’s position in society and the role of entrepreneurship in the same society. Women are faced with specific obstacles (such as family responsibilities) that have to be overcome in order to give them access to the same opportunities as men. Also, in some countries, women may experience obstacles with respect to holding property and entering contracts. Increased participation of women in the labour force is a prerequisite for improving the position of women in society and self-employed women. In almost all the countries there is a wide gap

between entrepreneurial activities across both the genders. There is also a wide gap between entrepreneurial activity between male and females in Indian context. The current review is an attempt to understand the dynamics of women entrepreneurship in Indian economy.

Methodology:

An attempt is made to describe the phenomena of women entrepreneurship in Indian and the study is exploratory in nature. The objectives are to review the engendered definition and the existing research and explore the profile, features and challenges encountered by women entrepreneurs in Indian. The information collected for this review is from the existing research on the topic included highly cited research studies on Women entrepreneurship specifically in the Indian. Most recent research studies available on Google Scholar, EBSCO and Proquest have been selected for the purpose of review.

Scope of the Study:

- ❖ Better understand the function of women's entrepreneurship in society and for economic development.
- ❖ Better understand the impact of women's entrepreneurship in different economic contexts.

TERMS AND DEFINITIONS

Entrepreneurship: Entrepreneurship is not only an art but also a science of innovation, risk-taking, and decision making for profit in business.

Entrepreneur: A person engages himself in organizing and operating a business, venturing and assuming much of the associated with risk.

Entrepreneur:

Around 1700 A.D. the term was used for architects and contractor of public works. In many countries, the term entrepreneur is often associated with a person who starts his/her own new business. An entrepreneur is someone who exercises initiative by organizing a venture to take benefit of an opportunity and, as the decision maker, decides what, how, and how much of a good or service will be produced. An entrepreneur supplies risk capital as a risk taker, and monitors and controls the business activities.

Concept of Entrepreneurship:

After learning about the Entrepreneurs, in depth. Let us now understand the meaning of entrepreneurship. Entrepreneurship is the dynamic process of creating incremental wealth. Cantillon was the first economist to introduce the term entrepreneur during 18th century, (Cantillon, R. 1755). Say opined that profits that accrue to an entrepreneur are distinct from the one who supplied capital, (Say. J. B. 1803). It can thus be construed that an entrepreneur is an economic agent taking risks with the expectation of earning profits. In the process the entrepreneur emerges an innovator and conscious decision maker leading to narrowing of gaps in market arising due to market imperfections. It is established that entrepreneurship is of immense importance to developed, developing and transition economies.

Understanding Women Entrepreneurship:

According to the Government of India, woman entrepreneur is the one who assumes dominant financial control (minimum financial interest of 51 per cent of the capital) in an enterprise (Government of India, 2012). Women who take onus to organize and manage the resources of their enterprises and bear all the risks in expectations of deriving profit can be termed as women entrepreneur. When a woman or group of women embark on initiating, organizing and managing their enterprise, they are termed as women entrepreneur (Suganthi, 2009). Creative activity of initiating and operating a business venture leading to economic empowerment and social betterment of women in the society can be termed as women entrepreneurship. This definition elaborates the positive, social and economic contribution of women entrepreneurship in the society (Munshi, S et al, 2011).

Barriers Encountered by Indian Women Entrepreneurs:

Both women and men face challenges in setting up their own businesses, but for women the barriers are often greater and harder to overcome. They are often confronted with a lack of government support in terms of policy, laws, and services, and in some countries have only limited access to formal bank accounts, which prevents them from accessing loans or credit. In some regions of the world, women have fewer inheritance rights than men, and in many countries there are legal distinctions between women and men that limit women's economic opportunities. The fact that many women receive limited education, skills training or career guidance only compounds these difficulties, and the lack of technological know-how or access to modern, affordable technology further stops women from reaching their full potential. Cultural values can also hold women back. A UNIDO-led study on barriers to women's entrepreneurship found that women were influenced more by traditional and internal factors than by legal or regulatory barriers when starting their business. Similarly, there are many countries where entrepreneurship is seen as an inappropriate career choice for women. In societies with rigid views of traditionally male and female roles, frequently reinforced by cultural and religious beliefs, women's opportunities for engaging in paid work or starting up enterprises are often limited. At the same time, perceptions of family responsibility pose a challenge, with patriarchal attitudes restricting women's responsibilities to domestic and family work, and thus preventing them from acting independently

The policy framework needs to be focused by Women Entrepreneur:

- ❖ Legal and regulatory policies supportive of women entrepreneurs.
- ❖ Promotion policies of governments for women entrepreneurs
- ❖ Access to Credit and Financial Services
- ❖ Access to enterprise education and training
- ❖ Access to business development and business information
- ❖ Access to women enterprise networks and associations
- ❖ Access to business premises
- ❖ Access to markets
- ❖ Research on women entrepreneurs

Focusing on these areas can create a conducive environment for women entrepreneurs.

Schemes offered to Women Entrepreneurs by Major Commercial banks

Bank	Schemes
Canara bank	Special benefits schemes for women entrepreneurs in micro and small enterprises: Relaxation in margin limit, processing fees and interest rates.
Small Industries Development Bank of India	Marketing fund for women: provides comprehensive package for facilitating access to markets.
State Bank Of India	Stree Shakti Package: Assistance in form of collateral free loans at lower rate of interest is provided to women entrepreneurs.
Bank of India	Priyadarshini Yojana: Collateral free loans at lower rate of interest are provided to women entrepreneurs.
Oriental Bank of Commerce	Orient Mahila Vikas Yojana: Collateral free loans at relaxed rate of interest and margin money is provided to women entrepreneurs.
Central Bank	Cent Kalyani: Collateral free loans to women entrepreneurs are provided.
Bank of Baroda	Mahila Aarthik Sahay Yojana: Women entrepreneurs are provided term and working capital loans.
Andhra Bank	Mutual Credit Guarantee Scheme for women: Offers collateral free credit facilities to women entrepreneurs.

Conclusion

Women entrepreneurship is instrumental for achieving economic and societal growth. Women entrepreneurs of India are now emerging in nontraditional sectors. Women entrepreneurs are a heterogeneous segment having diverse demographic, economic and educational background. The policies and schemes cater to the unique needs of every segment. There are numerous challenges faced by women in the course of their entrepreneurial career. Women entrepreneurship is concentrated in five states namely Tamil Nadu, Kerala, Andhra Pradesh, West Bengal and Maharashtra. The policy and interventions of these states needs to be explored so that the best practices can be emulated in other states. Majority of the women owned establishments are concentrated in unregistered sector and hence are unable to reap the benefits of government support. Women entrepreneurship is a diverse and complex domain which requires extensive and intensive research endeavours for decoding its dynamics.

References

1. Booz and Company (2012). Empowering the Third Billion: Women and the world of work in 2012.
2. All India Report of Sixth Economic Census of India (2016). Retrieved from <http://www.mospi.gov.in/all-india-report-sixth-economic-census>
3. Annual report 2016-17, Ministry of Women And Child Development, Government of India. Retrieved from http://www.wcd.nic.in/sites/default/files/FINAL%20WCD_AR_English%202016-17.pdf
4. Annual report 2015-16, Ministry of Micro, Small and Medium Enterprises, Government of India. Retrieved from <https://msme.gov.in/sites/default/files/MEME%20ANNUAL%20REPORT%202015-16%20ENG.pdf>
5. Assessing the Enabling Environment for Women in Growth Enterprises: An AfDB/IL O Integrated Framework Assessment Guide (2007). ILO: Geneva.
6. Baumol, W. J., Litan, R. E., & Schramm, C. J. (2007). Good Capitalism, Bad Capitalism, and The Economics of Growth and Prosperity. New Haven & London: Yale University Press.
7. Chandra, K.S. (1991). Development of Women Entrepreneurship in India: A Study of Public Policies & Programmes.
8. Charantimath, P. M. (2005). Entrepreneurship Development and Small Business Enterprise. India: Pearson Education.
9. Cochran, T.C. (1968). Entrepreneurship. In Sills, D.L. (Ed.) International Encyclopedia of the Social Sciences.
10. Coughlin, J. H., & Thomas, A. R. (2002). The rise of women entrepreneurs: People, processes, and global trends.
11. Dhameja, S. K. (2002). Women Entrepreneurs: Opportunities, performance and problems. India: Deep and Deep Publications.
12. Dhameja, S. K., Bhatia, B. S., & Saini, J. S. (2000). Women Entrepreneurs— Their Perceptions, About Business Opportunities and Attitudes towards Entrepreneurial Support Agencies (A study of Haryana State). Small Enterprises Development Management Extension Journal, 27(4), 37-50.
13. Drucker, P. F. (1964). The Big Power of Little Ideas. Harvard Business Review, 42(3), 6.
14. Final report of Second all India census of MSME (1992). Retrieved from http://www.dcmsme.gov.in/ito_msme/secondPercent20CensusPercent20S&DPercent20Division.pdf

UNDERSTANDING INDIAN NATIONALISM FROM A CHRISTIAN FRAMEWORK

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Abstract: Nationalism in the light of various social and religious bifurcations. The whole concept of Nationalism only on the base of Gandhian movement and the other related things should change and should be understood as any movement which can either be a people's movement or an intellectual awakening that unites the Nation, pinpoint the failures of the Nation, prompts the people to work and to promote the feeling of rationalism and secularism which strives for the welfare and the betterment of all the individuals and the society. This is where the Christian framework comes into picture and the article deals with the prospects and the challenges.

Keywords: *Nationalism, Christianity, Secularism, India*

Introduction

Nationalism guarantees unity and integrity of the people. It demands a sense of supreme loyalty of an individual towards the Nation by enhancing secularity and communal harmony and promoting unity amid diversity. This fundamental demand of Nationalism is put in vain when we talk about narrow Nationalism in the light of various social and religious bifurcations. The whole concept of Nationalism only on the base of Gandhian movement and the other related things should change and should be understood as any movement which can either be a people's movement or an intellectual awakening that unites the Nation, pinpoint the failures of the Nation, prompts the people to work and to promote the feeling of rationalism and secularism which strives for the welfare and the betterment of all the individuals and the society. By trying to place the Mar Thoma Christians' response to the Indian Nationalist movement as a prototype for the Christian community's contribution to the Nationalistic movement; first, by focusing on the Indian Christian response, and second, by re-reading the socio-cultural movements of Kerala from a nationalist perspective and finally, by placing the Mar Thoma Christians' response as part and parcel of nationalism

Defining Nationalism

Every human is born in a specific geographical location. These locations have their own life and thought world where the community or race of people share cultures, traditions, history, and, many at times, their language. However, when was 'nation' born? How was it conceived? These are some of the pertinent questions that have been asked by many. Today there are many types of nations that have risen. The territorial geography has changed dramatically post the two world wars and the Holocaust. When and where did this all start? It is worth exploring how 'nation' was formed and the impact of 'nationalism' on the world.

Evolution of Nationalism through the Annals of History

The idea of Nationalism has been contested for centuries. While some suggest the phenomena emerged post-French Revolution, the result of Nationalism has been quite destructive. The idea of a Nation has moved mountains, broken the walls of religion, and, as some would say, it has even demolished classes. India, which has been under foreign forces for centuries, has always adopted and adapted to cultures imposed by foreign cultures and given their cultures in return. However, British Empire was different. India began to lose its identity under the hegemonic practice governed by a flag and a national song. The idea of Modernism took

charge, making development became one of its primary mottos. It is at this juncture that we redefine the very concept of Nationalism.

The Idea of a Nation

Nation ideally is an 'essentially contested concept'. Elie Kedourie stated that 'The principle of all sovereignty resides essentially in the Nation'. For him, *Natio* in ordinary speech originally meant a group of men belonging together by similarity of birth, larger than a family, but smaller than a clan or a people. Thus, one spoke of the *Populus Romanus* and not of the *Natio Romanorum*. Medieval universities were divided into 'nations' indicating places of provenance, but in no way corresponded either to modern geographical divisions, or indeed to what is now understood by 'nations'. Etymologically, the term 'nation' is applied particularly to a community of foreigners, its pillar lying in the root word *nacioun*, which means "a race of people, large group of people with common ancestry and language," from Old French *nacion* "birth, rank; descendants, relatives; country, homeland" and Latin *nationem* (nominative *natio*) "birth, origin; breed, stock, kind, species; race of people, tribe," literally "that which has been born," from *natus*, past participle of *nasci* "be born. Though nations and nationalism have both been subjects of the utmost political importance throughout the 19th and 20th century, yet they appeared as topics of special scientific interest only until the dawn of the World War II. During the last seventy years, an ever-increasing number of academics have given their contributions to the deconstruction of these concepts. There were those who belong to the school of thought which claims that the nation is a perennial cultural and political phenomenon with its roots in antiquity and continuity over time like Perennialists Hugh Seton-Watson and John Anderson; those who claim that the nation is exclusively modern phenomenon and product of capitalism like modernists Elie Kedourie, Ernest Gellner, Benedict Anderson, Eric Hobsbawm; and then there are those who combine the two and argue that the nation is modern but with its cultural predecessors in antiquity like ethno-symbolist Anthony D. Smith. Each theory had a decisive impact on further scientific study of nationalism by illuminating new ways of thinking about what the nation was, what it is and what it might become, and 'When is a nation?' as rightly asked by Walker Connor.

It is important to understand what a nation is as it has the tendency divide humanity itself into distinct, and often conflicting groups. Anthony Smith tried to answer proposing a tripartite division: primordialism, modernism and ethno-symbolism, which remains the most widely recognized and used categorization in nationalism studies. Primordialism, maintains that nations have always existed; they are a 'natural' part of human beings, a view espoused by nationalist actors and ordinary people. Brubaker identifies them as real primordialists, who believe in the immemorial and perennial character of the nation. Gellner stated that, "a man (*sic* human) must have a nationality as he must have a nose and two ears". From cradle to grave, we are all constituted into a sort of '*homo nationalis*', our national identity is part of our own being. Perennialism, states that, nations are not natural but antique. Özkirimli negates and criticizes both these approaches for their essentializing treatment of the nation as a given, fixed, static entity. Primordialism is found guilty of 'retrospective nationalism', i.e. "the tendency to project modern concepts and categories onto earlier social formations". It correctly points to the deeply rooted attachment people have towards their nations, but it fails to explain the reasons of this attachment and eschews any issues of power behind the primacy and legitimacy of a certain attachment over others.

Christian Understanding of Nationalism

Do Christians or Christian Church in India have a particular understanding about the concept of Nationalism? It is a reality that as an institution neither it has given any theological interpretation to the Nation building process in the last half of the nineteenth

century or at the first half of the twentieth century. But the participation of Indian Christians for the same cannot be denied. There is ample evidence to prove that some of the Indian Nationalist made an attempt to understand the Western impact and Indian Nationalism in relation to their Christian faith. K.T. Paul was the person who coined the word Christian Nationalism. He is of the opinion that the very concept of Nationalism is difficult to describe but he used Nationalism as the very apt word in order to depict the situation of that time. He considered Nationalism as a tool which overtakes individual interest and equips people to go for a common interest. He considered the term Christian Nationalism as that which makes Christians accountable towards the growth and the development of the nation which moves beyond all human made barriers and boundaries. He participated in the London Round Table Conference of 1930 representing the Indian Christians and he strongly opposed against separate electorates for the minority religious groups in India.

1.6 Christian participation in the Nationalist Movement: A General Outlook

Kali Charan Banerji is one of the pioneers who allied with the Nationalistic movement. He was the leader of Bengali Christian Association and a very passionate Nationalist. He was a very important contributor to the Indian National Congress who addressed the annual sessions of the Congress in moulding the policy of National Movement. In the early phase of the Indian National Congress, the participation of the Indian Christians was more when compared to other period of time. In 1887, the Madras meeting of the Indian National Congress reported that out of 607 delegates 35 were Christians. Some of the prominent Christian Congress leaders of the time were R.S.N. Subramania from Madras, K. Banerji from Bengal, and C. Nath from Lahore etc. Pandhit Rama Bhai was also a prominent figure of that time. There are a lot of facts which substantiate the fact that the Indian Christian Community played a pivotal role particularly in the early phase of the Indian National Congress. The presence of Christians was notable in the various sessions of the Indian National Congress. For example, in the third annual session of the Congress in 1887, out of 607 participants forty delegates were Protestant Christians, and among those who addressed the assembly was MadhuSudhan D, a well-known leader from the Christian community in Orissa. This number of participants increases in the later sessions and In the 1889 session, among the ten women delegates, three were Christians which includes Pandita Ramabai, Saraswati, Mrs. Triumbuck, and Mrs. Nikambe. It was a reality that as time proceeds the participation declined and this was of the result that Christians became very fearful about the future in a country where they would be a minority and their association with the missionaries was also a very important factor. There developed an attitude among the Christian community that they may be more secure in the hands of British rule than in the hands of Indian government. As a result, they decided to rely more on the religious affinity than National affinity.

The educated Christians as a whole supported the Nationalist movement. There were many places in which the Church tried to be a part of the official ruling class. Among the many examples were The Arch Bishop of the Roman Catholic Church in Trivandrum gave reception to C. P. Rama SwamyAyyer the then Diwan of Travancore who suppressed all the Nationalist movements in Travancore, with an Iron hand. In Kerala the Youths Christian Council of Action protested against the negative stand taken by some of the Churches and its leaders. Abraham Mar Thoma the then Metropolitan of the Mar Thoma Church expressed in public the disagreement of the Mar Thoma Church toward the anti National attitudes of the Diwan C. P. Rama SwamyAyyer. These will be discussed in detail in the coming chapters.

But it is a reality that by the beginning of the twentieth century in the top order of Indian National Congress, Christians were very meagre. The entrance of Mahatma Gandhi to the helm of Indian Nationalist movement in 1920 made a very substantial difference. In this

juncture Gandhi's role for the marginalization of Christians was very clear. But even in the midst of all these things the Christian participation in different stance was immense.

Arthur Jayakumar says that when the Non-Co-operation Movement started in 1920, Indian Christians as a whole took part in it. The All India Conference of Indian Christians (A.I.C.I.C) held at Lucknow from 27-30 December 1922 made a reference to some of the Indian Christians who had suffered imprisonment as a result of their involvement in the National movement. A conference of leading Christians from all over India held at Ranchi in 1923 passed a resolution to give full support to the National movement. In 1930, among the 78 persons who accompanied Mahatma Gandhi during his Salt March from Sabarmati ashram to Dandi, there was a Christian named Thevarthundiyl Titus Titus, a young disciple of Gandhi and a member of a Christian family of Travancore. In the freedom and pro-democracy movement in Travancore in the 1930s and 1940s, prominent Christian leaders like T.M. Varghese, A.J. John, Anne Mascarenes and AkkammaCherian were important personalities. The Kerala Christians played a very substantial contribution in achieving Responsible Government for the states of Travancore and Cochin which led to the whole participation in the Indian Nationalist movement. One of the main examples in this regard is S.K. George.

When we make a percentage based analysis, we can find that when compared to the majority religion this minority religion also played an important role. But we can't deny the fact that some sections of the community had made some kind of negotiations with the British administration and moved aside from this movement. Another important reason is the caste problem that prevailed in India during that time and many of the Christian communities are part of the lower class which was subjugated by the high class Hindus. But the educated class of Indian Christians made a very significant contribution to the Nationalist movement and out of which the role of Kerala Christians is worth mentioning.

Conclusion

The idea of Nationalism has undergone a drastic change in the present Socio-Political environment of our country. Today when people are being killed in the name of Nationalism and ideology being mixed with Hindutva ideologies, it becomes important for us to understand what could be the actual idea of nationalism.

References:

- Alex, George K. *RashtriyaMandalathileAathmayaDarshanavumCharithravum*. Edited by Ommen V. Varkey, Mar Thoma SabhayileAathmayaGanam- Darshanam, Charithram, Sakshyam. Thiruvalla: Mar Thoma Church Publication, 2005.
- _____. "KozhencherryudeVikasaParinamangal." *Golden Jubilee Sovenier of St. thomas College Kozhencherry*2007.
- Aloysius, G. *Nationalism without a Nation in India*. New Delhi: Oxford University Press, 1997.
- Ayyappan, A. *Social Revolution in a Kerala Village, a Study in Cultural Change*: Asia Publishing House, 1965.
- Chandra, Bipin, ed. *IndiyudeSwatantriyaSamaram*. Kottayam: D.C. Books, 2007.
- Chandy, Acharya K.K. *A Quest for Community and Dynamic Non- Violence*. New Delhi: Christavashram and ISPCK Delhi, 2001.
- Chopra, P. N. *Kumaranasan and the Social Reform Movement in Kerala*. Edited by P.N. Chopra. Vol. III. New Delhi: AgamPrakasan, 1985.
- Connor, Walker. When is a Nation?," *Ethnic and Racial Studies* 13/1 January 1990
- Daniel, Mathew. *Kerala ChristavaSamskaram*. Thiruvalla: The Theological Literature Committee, 1985.
- _____, ed. *St. Thomas College Kozhencherry- Golden Jubilee Souvenir*. Kozhencherry: St.Thomas College, 2007.
- D.K.Sahu. *The Church of North India*. Germany: Peterlang, 1992.

- Jeyakumar, D. Arthur. *Christians and the National Movement*. Calcutta: PunthiPustak, 1999.
- Kedourie, Elie. *Nationalism*. London: Hutchinson University Library, 1960
- Kurup, K.K.N. *Kayyur Riot*. Calicut: Sandhya Publishers, 1978.
- _____. *The Agrarian Struggles of Kerala*. Trivandrum: K.P.H. Publishers, 1989.
- _____. *Nationalism and Social Change- the Role of Malayalam Literature*. Thrissur: Kerala Sahitya Academy, 1998.
- Kuruvilla, K.K. *A History of the Mar Thoma Church and Its Doctrines*. Madras: The Christian Literature Society for India, 1951.
- Majumdar, R.C. *History of Freedom Movement in India*. Calcutta: Firms K. L. Publishers, 1971.
- Mathew, Easow. "The Response of the Mar Thoma Church to the Struggle for Social Justice in Kerala in the Twentieth Century." Senate of Serampore, 2005.
- Menon, A. Sreedhara. *A Survey of Kerala History*. Kottayam: DC Books, 2008 (Reprint).
- Menon, P. Shungoonny. *Tiruvitamcore Charitram*. Trivandrum: State Institute of Languages, 1988.
- Metroplolitan, Alexander Mar Thoma. *The Mar Thoma Church- Heritage and Mission*. Thiruvalla: CSS, 1985.
- Nambudirippad, E.M.S. *Sampoorna Krithikal*. Edited by P. Govinda Pillai. Vol. 9. Trivandrum: Chintha Publishers, 2000.
- Özkirimli, Umut. *Theories of Nationalism*. Basingstoke: Palgrave, 2010.
- Prasad, Birendra. *Indian Nationalism and Asia*. New Delhi: B.R. Publishing Corporation, 1979.
- Thomas, Dr. George. *Christianikal Bharatha Swathandriya Samarathil*. Kottayam: The Indian Centre For Mission Studies, 1999.

FACTORS AFFECTING SUSTAINABILITY OF MICRO SMALL AND MEDIUM WOMEN ENTERPRISES

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ABSTRACT

Entrepreneurship can eliminate the problem of employment, poverty, and low economic growth by creating new job opportunities and promoting existing business. In India our Government has made great effort to help poor women to start small business by providing micro credit and facilitating financial services. The main purpose of the study is to identify the factors affecting the sustainability of women enterprises in Kerala. This study helps to identify the success of women entrepreneurs depends upon the availability of finance, environment around women entrepreneurs and involvement of women entrepreneurs. This study focused on Managerial skills, financial requirements, and legal requirements which affects the sustainability of women enterprises. The study used both primary and secondary data. The women entrepreneurs can easily be transformed in to successful entrepreneurs if adequate training and expertise is imparted to them. The professional skills influence the level of participation of women in the field of business or entrepreneurship. Training and development program helps to increase the efficiency of women entrepreneurs. Thus Managerial skill and expertise is required for the sustainability of women entrepreneurs. For encouraging women entrepreneurs, Ministry of MSMEs facilitates collateral free loans and various financial schemes which help to meet the financial requirements of women entrepreneurs. Women owned enterprises are playing an important role by inspiring others and generating more employment opportunities. There is a need for sustainable growth of women enterprises to promote a balanced growth in the economy.

KEY WORDS

Sustainability, Women Enterprises, Managerial Skills, Financial Requirements, Legal Requirements

INTRODUCTION

Entrepreneurship can do away with the problem of employment, poverty, and low economic growth by creating new job opportunities and promoting existing business. Recently special attention has been paid to the role women entrepreneurs in creating economic growth in developing countries and improving people condition (Elenurm and Vanio, 2011). The Micro, Small, and Medium Enterprises play a very important role in Indian Economy. MSMEs holds key factor for wider economic development and poverty alleviation. Micro, Small and Medium sized enterprises are key enablers of job creation and livelihood generation. It makes up more than 90 percent of all business globally, contributing more than half of all employment and more than a third of GDP. The Global Development Agenda – Sustainable Development Goals emphasis the need for integrated solution to development. This means that for MSMEs to contribute substantially in achieving SDGs , MSMEs should be resource efficient, ensure effective management of natural resources, be carbon neutral and manage their waste properly (Bhamra et al., n.d.).

Studies in entrepreneurship have showed a variety of theoretical perspectives to explain differences between women –owned businesses and male owned business (Jennings and Brush 2013). The outcome of survival duration of the women enterprises shows that their shortest survival periods while comparing male owned enterprises. Women entrepreneurs refer to women who organize and manage business. Women entrepreneur can be defined as

“confident, innovative and creative women capable of achieving self economic independence individually or in collaboration, generates employment opportunities for others through initiating, establishing and running the enterprise by keeping pace with her personal, family and social life” (Kamal Singh) .

The term sustainability means a continuation of a program in same way. Sustainable enterprise is an organization that can anticipate and meet the needs of present and future generations of customers and stakeholders through creating, innovating new business strategies, and activities that speed up positive social change protect and conserve environmental integrity, while enhancing business performance. Sustainable business considers a wide area of environmental, economic, and social factors while making business decisions. A sustainable business is one where profitability, concern for environment and social commitment are in harmony. Running a sustainable business involves using own resources economically and reducing any negative environmental impact. Women owned enterprise are playing an important role by inspiring others and generating more employment opportunities. There is a need for sustainable growth of women entrepreneurs to promote a balanced growth in the country. This study aims to identify the factors affecting sustainability of women enterprises in Kerala. These factors are management skills, financial requirements, and legal requirements.

STATEMENT OF THE PROBLEM

Now a day's large number of women owned business is increasing. They are highly supported by Government, financial institutions and other agencies. As a result Micro finance scheme was introduced for helping micro units, most of the micro women entrepreneurs are its beneficiaries. But in case of small scale business owned by women are not able to conduct their second anniversary. They close down because of lack of finance, lack of managerial skill and unable to meet the legal formalities provided by the concerned authority. Very few women owned businesses have attained their desired levels of growth. This study focuses on the factors affecting the sustainability of micro, small, and medium women enterprises in Kerala especially from Pathanathitta District.

REVIEW OF LITERATURE

Kotter (2002) recognized that management skills are effective in achieving business goals. The study found that selecting objectives, mission and action, decision making and forecasting future courses of action and for doing business in a competitive manner managerial skills are required. The management of business widely affects the sustainability of enterprises.

Simiyu (2003) legal requirements such as license, taxation plays an important role in the sustainability of women enterprises. Taxes and license fee affect the price of the product. According to Jepakorir (2007) many Government regulations made with the good intentions actually discourage and restrict enterprises.

Helen Kumari M J (March 2015) have conducted a research study on “Self Help Group and Women Empowerment –A Comparative Study of Kerala and Tamilnadu” by taking into account mobilization of savings and utilization credit by SHGs in Kerala and Tamilnadu. The research study found that in both states the purpose of the loan is given prime consideration in granting loan, the consumption of credit is better in Kerala compared to Tamilnadu. The study also found that women empowerment through SHGs in Kerala is greater than that of Tamilnadu.

Lisa K Gundry, Jill R Kickul, Tatiana Lakovleva and Alan L Carsrud (2014) in their article “Women –Owned Family Business in Transitional Economies: key influences on firm

innovativeness and sustainability” have examined familial authority on strategic entrepreneurial deeds with in a transitional economic framework. The study recognized the relationship between risk taking propensity, entrepreneurial intensity, and opportunity recognition of the entrepreneur and original orientation of the firm and sustainability.

Ranbir Singh (October 2014) in his research “Women Entrepreneurs: A Study of Current Status, Challenges and Future Perspective in the State of Himachal Pradesh” examined financial status, decision making status, social status of women entrepreneurs in Himachal Pradesh. The study also examined the responsiveness level among women entrepreneurs about various support schemes provided by the Government agencies, financial institutions, and banks.

Bhuyan Bonosree (2018) studies “The Sustainability of Micro, Small, and Medium enterprises in Kamrup Metro District of Assam”. The study examined the present scenario of MSMEs in Assam, entrepreneur related, enterprise related, and external factors of MSMEs in Assam. The study found that small entrepreneurs were mostly of partnership firm and medium enterprises were of company form of business. The study also found that training before setting up an enterprise has a sensible impact on sustainability.

Olysyniski (2000) points out that finance is the important element why people will go to do business for themselves. Seibel (1998) examines that financial institutions operate under profit and legal constraints that make them reluctant to offer financial services to enterprises

OBJECTIVES

1. To study the effects of managerial skills on the sustainability of women enterprises
2. To identify the effect of financial requirements on the sustainability of women Enterprises
3. To study how legal requirements affects the sustainability of women enterprises

1. Managerial skills

The growth of startup culture in India is something that is graded in nature and there are some reasons why India is becoming such a sustainable environment for startups to achieve their in. Some of these are the growing talent pool, decreasing the cost setting up business, technological advancement, various funding options, and Government support. Our Ministry of Skill development and entrepreneurship is working to promote skill among the women entrepreneurs and getting them suitably employed. MSME sector is increasingly contributing to the GDP along with continuous participation of women entrepreneurs. To promote women entrepreneurship in the country, Ministry of MSME provides a whole support to women entrepreneurs. Entrepreneurship promotion, training, and development programs are being organized regularly by the ministry of MSME and Other financial institutions in the state wide helps to improve their managerial skills and talent of women entrepreneurs.

2. Financial Requirement

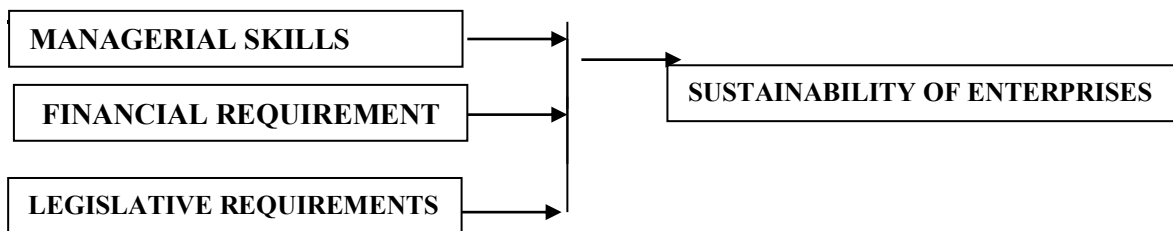
One of the important problems of sustainability faced by women entrepreneurs is the non availability of adequate finance to carry out their operations. For encouraging women entrepreneurs, Ministry of MSMEs facilitates collateral free loans and various financial schemes which help to meet the financial requirements of women entrepreneurs. Women entrepreneurs face various financial problems such as obtaining the support from the bank, managing the working capital and lack of credit resources. According to a report of UNITED INDUSTRIAL DEVELOPMENT ORGANISATION (UIDDO) “despite evidence that women’s loan repayment as higher than men’s; women still face more difficulties in obtaining credit”.

3. Legal Requirements

Several legal formalities must be complied with both new as well as established business. Some of these formalities include legal registration, financial regulations, tax

obligations and employment law regulations. Acquire license and renewal for the continuation of business requires legal formalities. General registrations such as GST registration, PAN, Tax Account Number, Bank account, shop and establishments license must be maintained. Proper maintaining of books of accounts and a sound payment and invoicing system must be followed. Another important requirement is Labour Laws, it must be followed the labour laws consist of crucial issues such as minimum wages, gratuity, weekly holidays, sexual harassment etc. Every women entrepreneur must follow the legal requirements of concerned authority. Meeting legal requirements are the important factor that helps to sustainable development of women enterprises.

CONCEPTUAL FRAME WORK



METHODOLOGY

Present study is an attempt to study the factors affecting sustainability of MSME women enterprises. Both primary data and secondary data were used for the study. The primary data is collected from women entrepreneurs who registered in the District Industry Centre. A questionnaire was used to collect data from respondents. Both direct and indirect method is used for data collection. Along with primary data, secondary data were collected from different articles, journals, published and unpublished reports and also from websites. The collected data have been analysed with simple statistical tools such as percentage analysis, mean, and standard deviation.

POPULATION

The target population under the study consist of all Micro, Small and Medium women enterprises registered under DICs in between 2010-2020 from Pathanamthitta District. In Pathanamthitta 1312 Micro, Small, and Medium enterprises registered between 2010 -2020.

Table 1

No.	Enterprise	Target Population
1.	Food Processing and services	507
2.	Textiles and Tailoring	328
3.	Tailoring	230
4.	Beauty parlor	182
5.	Others	65
Total		1312

Source primary data (2010-2020)

SAMPLING DESIGN AND PROCEEDURES

Stratified sampling technique was used to select a sample of 50 respondents who represented the target population. Proportionate sampling technique is approaches that divide the total population in to two or more group called strata. In this case every individual within

the target population had an equal chance of being selected. The sample size of each stratum was arrived at by dividing the population and multiplying the answer with the total sample.

Table 2

No.	Enterprise	Target Population	Sample
1.	Food Processing and services	507	19
2.	Textiles and Tailoring	328	12
3.	Tailoring	230	8
4.	Beauty parlor	182	7
5.	Others	65	4
Total		1312	50

Source primary data (2010-2020)

ANALYSIS AND INTERPRETATION

Socio-Economic Profile of investors

Following tables depicts the socio-economic profile of Micro, Small, and Medium women entrepreneurs in Pathanamthitta district. The profile consist of factors such as monthly income, type of business, nature of business, place of functioning, and type of activity undertaken.

Table 3

Income of the enterprise

	Frequency	Percent
10000		
15000		
20000		
25000	2	4.0
30000	7	14.0
35000	9	18.0
40000	8	16.0
50000	5	10.0
60000	4	8.0
Total	4	8.0
	5	10.0
	6	12.0
	50	100.0

Source primary data (2010-2020)

Table 4

Types of Business

	Frequency	Percent
Startups		
succession		
Take over	25	50.0
Joining as partner	13	26.0
Total	5	10.0
	7	14.0
	50	100.0

Source primary data (2010-2020)

Table 5

Nature of business

	Frequency	Percent
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Manufacturing		
Services	3	6.0
Both	16	32.0
Total	31	62.0
	50	100.0

Source primary data (2010-2020)

Table 6

Place of Business

	Frequency	Percent
Urban		
Semi urban	15	30.0
Rural	22	44.0
Total	13	26.0
	50	100.0

Source primary data (2010-2020)

Table 7

Type of activity undertaken

	Frequency	Percent
Food processing and services		
Textiles and tailoring	19	38.0
Tailoring	12	24.0
Beauty parlor	8	16.0
Others	7	14.0
Total	4	8.0
	50	100.0

Source primary data (2010-2020)

Table 8

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Managerial skills					
Financial requirements	50	1	5	2.96	1.261
Legislative requirements	50	4	5	4.64	.485
Valid N (list wise)	50	1	5	3.24	1.205
	50				

Source primary data (2010-2020)

Table 8 shows factors affecting sustainability of women enterprises in Pathanamthitta district. Managerial skills, financial requirements, and legislative requirements are the variables used for this study. Among these variables financial requirements are the most important factor affecting the sustainability of micro, small, and medium women enterprises shows highest mean and lowest standard deviation.

FINDINGS AND CONCLUSION

This study found that financial requirements are the most important factor which affects the sustainability of micro, small, and medium women enterprises. Legislative requirements and managerial skills are another important factors affecting sustainability of women enterprises. The purpose of the study is to investigate the factors affecting sustainability of Women Enterprises. The study concluded that Managerial skills, Legislative Requirements,

and Financial Requirements are all critical determinants of Sustainability of women enterprises in Kerala.

REFEREANCES

- Bhamra, A., Dewan, C., & Verma, K. (n.d.). Micro and Small Enterprises - Striving towards a greener economy. *PEP Working Group on Green Micro and Small Enterprises*.
- Bonosree, B. (2018). *A Study On The Sustainability Of Micro, Small and Medium Enterprises (MSMEs) IN Kamrup AND Kamrup Metro District of ASSAM*. <http://hdl.handle.net/10603/233600>
- Gupta, C. (2017). Role of Government in Promoting Women Entrepreneurship. *Journal of Marketing Strategy*, 5(3), 1–7.
- Jennings, J.E., Brush, C.G., 2013. Research on women entrepreneurs: challenges to (and from) the broader entrepreneurship literature? *Acad. Management. Ann.* 7 (1), 663–715.
- Rachman, T. (2018). sustainability of enterprises *Angewandte Chemie International Edition*, 6(11), 951–952., 10–27.
- Wanjiku Njogu, S. (2016). Factors Affecting Sustainability of Women Enterprises: Insights from Kapsabet Town (KT) Experience, Kenya. *Humanities and Social Sciences*, 4(4), 90. <https://doi.org/10.11648/j.hss.20160404.12>
- Yanti, V. A., Sofyanty, D., & Ong, D. (2021). Competency Development Strategy For MSME Actors In The Use Of Icts In Rural And Urban Areas In An Effort To Support Business Sustainability (Case Study Of Msmes In The Regency And City Of Bandung). *Journal of Industrial Engineering & Management Research*, 02(01), pp.90-94.
- J, H. M. (2015, March). Self Help Group and Women Empowerment-A Comparative Study of Kerala and Tamilnadu. University of Kerala.
- Gundry, L. K., Kickul, J. R., Iakovleva, T., & Carsrud, A. L. (2014). Women-owned family businesses in transitional economies: key influences on firm innovativeness and sustainability. *Journal of Innovation and Entrepreneurship*, 3(1), 1–17. <https://doi.org/10.1186/2192-5372-3-8>
- Ranbir Singh. (2015). *Women entrepreneurs :A study of current status , Challenges and Future Perspective in the state of Himachalpradesh* [Shoolini University of Bio-technology and management science]. <https://doi.org/http://hdl.handle.net/10603/105602>

OPPORTUNITIES AND CHALLENGES OF GREEN ENTREPRENEURSHIP WITH A SPECIAL REFERENCE TO THE HANDICRAFT INDUSTRY IN WAYANAD DISTRICT

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Abstract

Handicraft sector is a growing green-based entrepreneurship all over the world. In the district of Wayanad in Kerala too it has given a pivotal role in the enhancement of green entrepreneurship. Green Entrepreneurship is the process of wealth creation by ensuring the best use of natural or man-made resources while reducing waste, increasing profitability, and making a positive impact on humanity. Handicraft industries operate entirely according to the norms of green entrepreneurship. This study assesses the opportunities and challenges faced by green entrepreneurs in the handicraft sector in Wayanad District.

Throughout a period of rapid economic change, this study aims to emphasize the opportunities and challenges that are faced by handicraft green entrepreneurs. As a result of the growing base of eco-consumers, people now prefer green products over traditional items as they become more environmentally and socially concerned. Entrepreneurs are taking the advantage of the traditional market scenario by inventing and redesigning their products with a green perspective. As a consequence, the idea of green entrepreneurship is slowly and steadily establishing a stronghold in markets. The descriptive/analytical approach was used in this study to examine the condition of green entrepreneurship in the handicraft sector in the Wayanad district. The study incorporated both primary and secondary data. The information was gathered using a systematic sampling method from handicraft entrepreneurs who had acquired a Udyog Aadhar registration number from a DIC (District Industrial Centre) in Kerala's Wayanad district. Formally scheduled semi-structured interviews have been used to obtain primary data. The data were analysed using statistical tools such as Frequency Distribution, Percentage analysis, Chi-square test, and so on. From the study, it is found that green entrepreneurs have many opportunities, but they have to face their challenges too. This report provides valuable insights into the significant opportunities and challenges, as well as policy recommendations for fostering a green entrepreneurship environment, especially in India's handicraft sector. This study contributes to the literature by conducting a sector-specific analysis of green entrepreneurs in the Wayanad district's handicraft industry sector.

Key Words:

Green entrepreneurship, Handicraft industries, Opportunities, Challenges, economic development, environmental sustainability

1. Introduction

Businesses and industries have an immense influence on the environment as it may leave an ecological footprint during the collection of raw materials, manufacturing the products, and allied activities for both. Recent studies reveal that deforestation, natural calamities, and global warming are all contributing to a growing rate of destruction of the environment worldwide. The development of sustainable solutions to the climate change dilemma falls on both developed and emerging economies. The way of businesses responded to environmental issues was negative, and it showed little regard for the environmental costs of their operations (Utting, 2000). The Intergovernmental Panel on Climate Change (IPCC) has defined climate change as "change in the state of the climate that can be identified by

changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer." Global warming, resource depletion, excessive use of fossil fuels, and increased waste generation are some of the main contributors to this quick change in weather. These factors haven't helped to conserve nature, but have instead harmed the quality of the air, water, and land as well as the fertility of soil and oceans in general. More and more nations have elevated "carbon neutrality" as a national goal and presented a vision for a carbon-free future as the threat posed by global climate change grows. Agriculture, handicraft, energy, tourism, and many other industries have been impacted by a failure to solve the problems. As a result, while developed economies have historically had to suffer the impact of it, it is also true that they have made matters worse by using production and manufacturing techniques that haven't done much to protect the environment.

Green entrepreneurship in the area of the handicraft industry makes a solution for these issues. Handicraft industries in India came under the category of MSME Act of India. Green entrepreneurship is a global phenomenon that embodies new knowledge and strategies to address the world's growing environmental problems, global warming, and resource scarcity. It also establishes new benchmarks for capacity development and capacity upgrading. It creates opportunities for innovation, technology adaptation, job creation, and the resolution of a number of related local and regional challenges that are related to unemployment in many developing countries. India has the largest population of young people in the world so it is crucial that the country and its youth understand the possibilities of a green economy and that the economy receives the necessary focus and push to induce more and more green entrepreneurs to join this global movement. Adaptation of green business practices can throw open a host of opportunities for these ecopreneurs. In order to make this a reality, policies, and measures need to be undertaken to reduce carbon footprint across various sectors and industries and discourage traditional methods that are energy consuming and add to high pollution levels. The word "green entrepreneurship" was first used by Berlel who also popularised terms like "recycling," "renewable energy," and "preservation." He lists out environmental causes and makes the proclamation that "one man's waste is another man's treasure" in his book "Business prospects that can rescue the earth and bring you money." Thus, entrepreneurs emerged in all sorts of businesses—small, medium, and micro—fuelling economic growth as well as helping to address environmental difficulties and finding creative solutions to societal problems. Thus, in addition to the financial incentive, a new breed of independent business people formed that "may be advancing toward restructured ecological society."

Thus, environmental entrepreneurship wasn't really given much attention until the late 1990s, when terms like "environmental entrepreneurs," "green entrepreneurs," "eco-entrepreneurs," and "ecopreneurs" started to be used frequently to describe people who engaged in activities to both make money and seek out sustainable advantages. Ecopreneurs are those that invest in environment-friendly business practices in order to make money while also benefiting society by preserving the environment. Thus, developing novel goods and services that catered to the new, growing market opportunities came to be known as "green entrepreneurship." The handicraft industries have been identified as a potential answer for sustainable economic development. In the framework of sustainable development, the production of traditional handicrafts serves the national economy on a socio-cultural and environmental level. Therefore, this study investigates the potential for growth in the production of handicrafts for protecting the environment. Investigating how the handicraft industries facing challenges and using opportunities as a green entrepreneurship

1.1 Handicraft Green Entrepreneurship in India

The primary government agency for craft and artisan-based activities in India is the office of the Development Commissioner (Handicrafts) which aids in the creation, promotion, and export of handicrafts as well as the advancement of craft techniques and skill sets. The help comes in the form of financial and technical support, including the implementation of planned actions through its field offices. The handicraft industry is large and crucial to the economy of the nation. While conserving the nation's cultural legacy, it employs a large portion of artisans in rural and semi-urban regions and earns significant foreign exchange. According to the 11th Plan's census, the total number of handicraft artisans and green entrepreneurs in India was 68.86 lakhs. Among them 56.13 percent of people are women and 43.87 percent are male, while SC makes up 20.8%, ST 7.5%, 52.4 % of the population are OBC and 19.2 % of the population are general. India is a significant source of handicrafts for the global market. India only accounts for a relatively minor portion of global imports, despite the seeming size of its handicraft exports. India has not been able to take advantage of available prospects despite having a strong manufacturing base and a vast population of handicraft green entrepreneurs.

Craft products are increasingly being sold to many nations as part of the global market for lifestyle goods. The impact is a result of shifting consumer trends and tastes. In light of this, it is imperative for the Indian Handicraft Industry to focus on evolving designs, patterns, product development, innovations, and necessary change in production facilities for a variety of materials, production techniques, and associated expertise in order to achieve a leadership position in the rapidly growing competitiveness with other nations. The 7 million handicraft green entrepreneurs who make up the core of the Indian handicraft industry and who possess innate talent, technique, and traditional craftsmanship are more than enough for the main market. However, in order to create value and gain an advantage over rivals like China, Korea, Thailand, and others, these craftspeople require institutional assistance close to where they work.

1.2 Handicraft Green entrepreneurship in Kerala

Many local bodies (Panchayath) in Kerala initiated activities to promote carbon neutrality. In order to promote this, the state government decided to provide both financial and technical assistance to green entrepreneurs. In the state of Kerala, it is estimated that there are about 1.7 lakh handicraft artisans actively engaged in the sector. Handicrafts Development Corporation of Kerala Ltd, a Government of Kerala undertaking, functioning under the Department of Industries and Commerce, Government of Kerala, was incorporated in 1968 for undertaking Developmental, Marketing, and Welfare activities in the handicrafts sector of Kerala. The main goal of the organization is to improve Kerala traditional artists' living standards by giving them a marketing platform. The corporation markets handicrafts acquired directly from the artisans through its 19 showrooms operating under the brand name "Kairali" and strategically located throughout India. The Corporation has been running a Common Facility Service Centre (CFSC) at Thiruvananthapuram for the benefit of wood-based artisans to improve their crafts. Many other marketing programs such as exhibitions, Craft bazaars and Craft awareness programs are also being pursued by the Corporation to enhance penetration of handicrafts to various strata of society. Moreover, to meet the capital requirements at grass-root levels, the financing schemes for the benefit of the needy craftsmen are being implemented by the Corporation. The continuing training and developmental activities are being implemented through assistance from various Governmental Organizations.

The Directorate of Industries and Commerce is in charge of carrying out a variety of industrial operations including supporting and advising MSMEs (Micro Small or Medium Enterprises) in the state. The main function of the directorate is to act as a facilitator for

the conventional industrial sector, MSMEs (Micro Small or Medium Enterprises), and industrial promotion in the state. The District Industries Centres (in all fourteen districts) and Common Facility Service Centres are under the direction of the Directorate of Industries and Commerce. In order to get assistance from DIC, the entrepreneurs must register their names and details through Udyog Aadhar or Udyam registration.

1.3 Handicraft Green entrepreneurship in Wayanad

Meenangadi Gramapanchayath of Wayanad district, Kerala is declared as the first carbon-neutral panchayath in India. The carbon neutral project is launched on 5th June 2016. Handicraft green entrepreneurs carried an eminent role in implementing this project. Now, the whole Wayanad makes an action plan for declaring it as a carbon neutral district. One of the major areas of the action plan is providing assistance to encourage handicraft green entrepreneurship. Local Self-governments authorities in the Wayanad district started their activities to support green entrepreneurs for achieving the result of carbon-neutral Wayanad. This paper discusses the role of handicraft entrepreneurs to conserve the environment to avoid various hazards.

2. Statement of the problem

The Handicrafts Sector provides employment to many artisans and generates substantial foreign exchange for the country after ensuring the protection of environment and maintenance of sustainable development. Handicraft green entrepreneurs face many challenges during their operation which affected their earnings. They had to convert these challenges into opportunities for their existence and to maintain their standard of living at least at the minimum level. The main objective of the study is to understand the impact of challenges and opportunities on the operational results of green entrepreneurs in the handicrafts sector.

3. Literature Review

Purushottam N. Vaidya and Dr. D.V. Honagannavar define green entrepreneurship as a system that uses substantial breakthroughs to change socially and ecologically conscious businesses. Green entrepreneurs help individuals change their ways of thinking to be more environmentally friendly and generate demand for green goods and services, which boosts both job opportunities and environmental benefits. Green company owners are implementing certain modifications. The primary forces behind change are resource efficiency, clean production methods, and pollution reduction. To raise awareness of green entrepreneurship, there may be opportunities in the fields of food, heating, transportation, building, fashion, cleaning, consultancy, etc.

There is a favourable environment for these green entrepreneurs as more nations are starting to adopt green practises like waste management, green supply chains, and green marketing. The rise of green business owners also inspires recent graduates to establish a company. Market and social recognition are two ways that green business owners may earn. Consumers' attitudes towards green products can alter as a result of their increased environmental awareness. Green business owners are made up of a variety of variables. They are sustainability, innovation, technology, and social and environmental goals. The Indian government encourages the growth of entrepreneurship. (NK Sharma and GS Kushwaha, 2016)

The purpose of green entrepreneurs in the developing green market landscape is to address environmental issues while fostering competitiveness and enhancing societal welfare generally. Environmental excellence, social welfare, innovation, sustainability, technical advancement, and economic development are the key tenets of green entrepreneurship.

Economic, social, and environmental goals influence green entrepreneurial activities, which in turn promote sustainable development (Haldar, S., 2019).

Consumers all across the world have a strong desire to safeguard the environment, and their purchasing habits are shifting toward ecologically friendly items. By reorganising the industry and utilising technical resources, green entrepreneurship may concentrate on the evolution of the idea of production, operation, and innovation for the manufacturing of new products that will be utilised to assist sustainable development. Sustainable development is made feasible by green entrepreneurs who are involved in sustainable production, design, and supply chains. It was discovered that green entrepreneurship and sustainable development are positively and significantly impacted by green product, green design, green supply chain, and green manufacturing. Sustainable development and green entrepreneurship are positively impacted by the establishment of the green market. It is necessary to have business owners who work to conserve natural resources if we are to pay attention to the growth of the green market and peoples' desire to protect the environment. Political, economic, social, and cultural frameworks must shift in order to achieve sustainable development. (Lotfi, M. et al. 2018)

The threats of climate change and global warming, as well as knowledge of corporate social responsibility, are the driving forces behind people's concern for the environment and desire to start green businesses. (Dr. P. Paramashivaiah et al. 2013) Green business owners must resist with a lack of knowledge about green goods, services, and practises. Starting a firm in the service sector was less complicated than starting one in the manufacturing sector, which requires a deeper grasp of processes and production techniques as well as the cost and dependability of transportation. (Gunawan, J. and Fraser. K.. 2016)

Millennials' environmental knowledge and consciousness foster a supportive attitude toward green business ventures. Through green entrepreneurship, it aims to offer guidance and workable solutions to stop future ecological destruction. The younger generation is paying more attention, and the government and other public institutions are helping to promote environmental awareness. Cost savings, increased profits, improved brand impression, and other advantages are available to green businesses. Green jobs can be produced by green businesses. By achieving environmental sustainability, the company's reputation will improve. Green businesses are inspired by consumers' growing knowledge of environmentally friendly and green products. The availability of low-cost technical solutions for green businesses, together with increased consumer awareness of and demand for organic goods, is what drives green entrepreneurs. Pesticide use and pollution in commonly consumed goods have increased, changing customer preferences for natural products and ingredients. Government assistance and subsidies for green businesses are sufficient. Concern over starting a green business stem from the general knowledge of the environment and the detrimental effects of human activity on environmental deterioration. Other significant industries for potential green entrepreneurship include textiles, manufacturing, handicrafts, housing, and construction. These industries all engage in green business. These industries will provide employment possibilities, and contribute to economic growth and the transition to a green economy. The chances for the green company will grow as the entrepreneurial climate, employment in green professions, the existence of specialized colleges, collaboration with NGOs, local recognized programs, and understanding about green business expand. According to Mathur, S., and Tandon (2016), the most sustainable response to the increasing natural resource depletion and ecological imbalance is green entrepreneurship.

3.1 Research gap

The previous studies give a meaningful insight into problems in a general dimension. It could see that there is a large variety of studies are undertaken to explain the economic

conditions of green entrepreneurship. Wide lists of articles are available to elucidate the opportunities and challenges of handicraft units. Recently, some researchers have analysed the opportunities of green entrepreneurship in various dimensions. The study related to challenges of green entrepreneurship explains all green entrepreneurship as whole. Numerous studies have been done on how consumers feel about green products, how they see green businesses, etc. However, there are just a few different causes driving the rise of green businesses. Therefore, the study's scope is broad and relevant to industry, government, and decision-makers, among others. From the existing space, the present study is an attempt to study the 'Opportunities and Challenges of Green Entrepreneurship with a special reference to the Handicraft industry in Wayanad District'.

4. Significance and scope of the study

The handicrafts industry is carrying an eminent role in protecting the environment to all over the world. Lack of sufficient profitability and large competition from MNCs have badly affected the smooth functioning of various industries. The handicraft industry is operating with the green protocol for the entire production process because it has no more mechanization and chemical waste. The result of the study would significantly contribute toward the necessary data for the administrators for framing policies and making decisions. The study emphasizes analysing the opportunities and challenges faced by green entrepreneurs' special reference to the handicraft sector in Wayanad District. It tries to find out factors that may significantly influence the operation of the handicraft industry.

5. Data and Methods

The primary data are collected directly from the green entrepreneurs in the handicraft sector in the Wayanad district. Meenangadi Gramapanchayath of Wayanad district, Kerala is declared the first carbon-neutral panchayath in India. This is extended to the entire district and makes an action plan for declaring it as a carbon neutral district. Therefore, the primary data are collected from handicraft entrepreneurs in the Wayanad district those who are more concerned about environmental issues. The mailed questionnaire has also been used for collecting primary and secondary data collected from various publications and the official site of the department of the textile industry(handicraft).

Primary data can be collected from respondent through questionnaire. Secondary data can be used for this study from District Industrial Centre, government website and journals. The primary data for this study was collected through the distribution of self-administered questionnaires to potential respondents across the Wayanad district. The target respondents of this study were the green entrepreneurs in the study area. The gathered primary data were scrutinized, verified, and arranged properly. After coding, computer data entry was done carefully. The data were analysed with the help of the computer program SPSS (Statistical Package for Social Sciences) and Excel. Statistical tools such as Frequency Distribution, Chi-square test, etc. were applied to analyse the data.

6. Hypothesis

Ho-There is no significant relationship between Environmental awarenessprogrammes and positive attitudes toward handicraft green entrepreneurship.

H1-There is a significant relationship between Environmental awareness programmes and positive attitudes toward handicraft green entrepreneurship.

Objectives of the study

- To examine the challenges faced in Green Entrepreneurship.
- To examine the supporting factors for Green Entrepreneurship.

- To evaluate the role of education, government support, and environment for conducive growth of entrepreneurship.

7. Results and Discussions

The analysis and findings of the present study are discussed in different sections. The initial section analyses various qualitative variables of the study, reasons for engaging the handicraft activities, Membership for support, the technology used, method of marketing, Weaknesses of Handicraft entrepreneurs, Challenges faced by green entrepreneurs, and opportunities for green entrepreneurship. etc. The percentage analysis is mainly used for this purpose. The other areas are done with the help of numerical analysis of variables.

7.1 Method of production and chances of pollution

Table 1 shows the chance of pollution due to capital-intensive technology. 6% of handicraft green entrepreneurs use capital-intensive technology only, 11% belong to labour-intensive technology while 83% of handicraft green entrepreneurs are using both capital- and labour-intensive technology for making their products. Therefore, the chance of pollution is very little due to the labour-focusing methodology of production.

Technology used	Frequency	Percentage
Capital intensive	4	5.56
Labour intensive	8	11.11
Labour & Capital intensive	60	83.33

Source: Primary data

Table 1

7.2 Membership and assistance

Table 2 reveals the role of the supporting agency. The majority (40%) of the handicraft green entrepreneurs are members in Self Help Groups and 32% are receiving support from various NGOs. The NGO and Local Self Government are providing support to supply raw materials and collect the finished products from handicraft green entrepreneurs. Supporting agencies are giving training and financial assistance to the venture. So, entrepreneurs will get sufficient knowledge about waste management and optimum utilisation of resources.

Membership in any Group/SHG/NGO, etc.	Frequency	Percentage
SHG	29	40.27
NGO	23	31.94
Another supporting agency	16	22.22
No Membership	4	5.56
Total	72	100

Source: Primary data

Table 2

7.3 Reasons for engaging in the Handicraft activity

The initiative of green entrepreneurs for protecting the environment is clarified while seeing Table 3 25% of handicraft green entrepreneurs are engaged in handicraft activities because of protecting the environment and they are pursuing the hereditary job 20% only. The other causes of engaging in handicraft activities are very few. So, the business is trying to maintain environmental sustainability along with earning profit.

Reasons for engaging the Handicraft green entrepreneurship	Frequency	Percentage
Protecting the environment	18	25.00
Less Investments	8	11.11
Utilization of free time	2	2.78
No other option	8	11.11
Hereditary job	16	22.22
Availing Government support	2	2.78
Interested activity	16	22.22
Other Reasons	2	2.78

Source: Primary data

Table 3

7.4 Method of Marketing Green Products

Entrepreneurs have a vital role in selling their products, 25% are selling their products directly to consumers. So, they are compelled to maintain environment protocol related with the marketing aspect. It can be seen in table 4. Supporting agencies are giving opportunities for direct marketing (green marketing) of their products through trade fairs and exhibitions. So that will help to maintain profit and environmental sustainability.

Method of Marketing Green Products	Frequency	Percentage
Hired by NGO	10	13.89
Hired by Marketing Agency	12	16.67
Direct selling to customers	18	25.00
Exhibitions and fairs	16	22.22
Mix of above	16	22.22

Source: Primary data

Table 4

7.5 Weaknesses of Handicraft green entrepreneurs

As per table 5, the main weakness of entrepreneurs is that, they lacking the skill of collecting raw material (30%). Another important weakness is limited knowledge about supporting

schemes of government and other agencies. They can overcome the listed limitations if the government provide effective training to them.

Weaknesses of Handicraft green entrepreneurs	Frequency	Percentage
Lack of managerial skill for overcoming environmental issues	13	18.06
Less information about online marketing	11	15.28
Lack of information about supporting scheme	18	25.00
Lack of knowledge about new market trends	8	11.11
Lack of skill to collect raw material	22	30.56

Source: Primary data

Table 5

7.6 Challenges faced by Handicraft green entrepreneurs

The major challenges faced by green entrepreneurs are scarcity of working capital, lack of support from LSG, lack of transportation facility, lack of storage place for keeping finished goods, improper implementation of government schemes/programmes, irregularity in employment, and lack of prospective buyers and lack of training possibilities. The importance of these challenges is listed in table 6. Whenever the entrepreneurs are able to tackle these challenges, that will help to economic and social development along with environmental conservation.

Challenges faced by Handicraft green entrepreneurs	Frequency	Percentage
Lack of support from LSG	8	11.11
Lack of storage place for keeping Row-materials	10	13.89
Lack of storage place for keeping finished goods	5	6.94
Lack of support for protecting the environment	6	8.33
Improper implementation of government Schemes	10	13.89
Irregularity in employment opportunities	12	16.67
Lack of prospective buyers	11	15.28
Lack of training possibilities	10	13.89

Source: Primary data

Table 6

7.7 Environmental education and positive attitude toward handicraft green entrepreneurship

Chi- square test			
Group	Awareness program implemented	Awareness program not implemented	Marginal Row Totals
Positive attitude towards green entrepreneurship	26 (19) [2.58]	10 (17) [2.88]	36
No Positive attitude towards green entrepreneurship	12 (19) [2.58]	24 (17) [2.88]	36
Marginal Column Totals	38	34	72 (Grand Total)

Source: Primary data

Table 7

The chi-square statistic is 10.9226. The p-value is .00095. significant at $p < .05$, The chi-square statistic with Yates correction is 9.418. The p-value is .002149. Not significant at $p < .05$

As per the above chi-square test, the null hypothesis is not significant and is rejected and accepts the alternative hypothesis, i.e., the environment education and training as part of various projects like carbon neutral project are very effective for creating positive attitudes toward green entrepreneurship. The support and assistance from government and non-governmental agencies as part of implementing various projects like Carbon neutral projects are also effective.

8. Conclusion

Green entrepreneurship is helpful in maintaining environmental balance along with economic and social development. Therefore, strong environmental management laws and regulations can be imposed on businesses to practice green entrepreneurship and support raising the bar for sustainability. Handicraft green entrepreneurship offers answers for both youth unemployment and lack of sustainability. For a systematic strategy for green entrepreneurship to be developed, government intervention, as well as environmental awareness campaigns, are required. It has come to the realization that encouraging a green business requires educating entrepreneurs about the prospects presented by green business models in India. Institutional support for young entrepreneurs is also required, including the provision of financial and technical assistance microfinance for start-ups. The support and assistance from government and non-governmental agencies including the provision of financial and technical assistance microfinance for start-ups are required. Implementation of various projects like Carbon neutral projects creates a positive attitude towards handicraft green entrepreneurship. The paper argues that there are significant opportunities for green enterprises in the present chaotic green market. These green business owners might act as catalysts for change in the trade and commerce sector, strengthening the harmony in enhancing economic growth and the protection of environment.

References

- Bank, W., Partnership, G., For, F., Development, S., & Annual, G. (2018). *World Bank Group Partnership Fund for the Sustainable Development Goals*.
- Beiwei, L., Zhengliang, Y., & Hongtao, L. (2022). Factors Influencing Green Entrepreneurship of Returning Migrant Workers under the Dual-Carbon Background. *Security and Communication Networks*, 2022. <https://doi.org/10.1155/2022/7611810>

- Gentv, K. I., & Awe, O. K. (2017). *MODERATING EFFECT OF TRAINING TRANSFER ON THE DETERMINANTS OF ENTREPRENEURIAL PERFORMANCE AMONG MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs) OWNERS IN LAGOS*. 11(1), 92–105.
- Haldar, S. (2019). Green entrepreneurship in theory and practice: Insights from India. *International Journal of Green Economics*, 13(2), 99–119. <https://doi.org/10.1504/IJGE.2019.103232>
- Herman, L. E., & Anggraeni, A. I. (2015). Nurturing green product into globalization: Challenges and opportunities over Indonesian smes. *International Journal of Applied Business and Economic Research*, 13(7), 6199–6215.
- EMERGENCE OF GREEN ENTREPRENEURSHIP IN KERALA ; A SOLUTION FOR SUSTAINABLE*. (2022). 7(1), 6439–6443
- Mathur, S. (2016). Green Entrepreneurship: The Emerging Paradigm for Sustainable Growth and Development in India A Study of the Millennials. *Indian Journal of Science and Technology*, 9(1), 1–11. <https://doi.org/10.17485/ijst/2016/v9i45/106753>
- Nayak, Y., & Sahoo, A. (2022). Green entrepreneurship in India. *International Journal of Agricultural Research, Innovation and Technology*, 11(2), 72–75. <https://doi.org/10.3329/ijarit.v11i2.57258>
- Oyekunle, O. A., & Sirayi, M. (2018). The role of design in sustainable development of handicraft industries. *African Journal of Science, Technology, Innovation and Development*, 10(4), 381–388. <https://doi.org/10.1080/20421338.2018.1461968>
- Personal, M., & Archive, R. (2013). *Munich Personal RePEc Archive Green finance is essential for economic development and sustainability Chowdhury ,Tasnim and Datta , Rajib and Mohajan ,. 51169*.
- Renfors, S. M. (2020). *Business from Nature: Handbook of Green Business Planning in Micro-Enterprises*. https://www.theseus.fi/bitstream/handle/10024/337235/2020_C_2_SAMK_Business_from_nature.pdf?sequence=1
- Sharma, C. S. R. (2020). *Analysis of green entrepreneurship practices in india*. 03(04), 300–304.
- Soenarto, S., Rahmawati, R., Suprpti, A. R., Handayani, R., & Sudira, P. (2018). Green Entrepreneurship Development Strategy Based on Local Characteristic to Support Power Eco-Tourism Continuous at Lombok. *Journal of Tourism & Hospitality*, 07(06), 257–273. <https://doi.org/10.4172/2167-0269.1000394>
- Soenarto, S., Rahmawati, R., Suprpti, A. R., Handayani, R., & Sudira, P. (2018). Green Entrepreneurship Development Strategy Based on Local Characteristic to Support Power Eco-Tourism Continuous at Lombok. *Journal of Tourism & Hospitality*, 07(06). <https://doi.org/10.4172/2167-0269.1000394>
- Suasana, I. G. A. K. G., & Ekawati, N. W. (2018). Environmental commitment and green innovation reaching success new products of creative industry in Bali. *Journal of Business and Retail Management Research*, 12(4), 246–250. <https://doi.org/10.24052/jbrmr/v12is04/art-25>
- Tien, N. H., Hiep, P. M., Dai, N. Q., Duc, N. M., & Hong, T. T. K. (2020). Green entrepreneurship understanding in Vietnam. *International Journal of Entrepreneurship*, 24(2), 1–14.
- Yadav, U. S., Tripathi, R., Tripathi, M. A., Rawat, A., & Kushwaha, J. K. (2022). Performance of Women Artisans as Entrepreneurs in Odop in Uttar Pradesh to Boost Economy Strategies and Away towards Global Handicraft Index for Small Business. *Academic of Marketing Studies Journal*, 26(1).

THE IMPACT OF OCCUPATIONAL STRESS ON WORK LIFE BALANCE AMONG THE IT SECTOR PROFESSIONALS

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Abstract

Majority of the humans spend their active time in their workspace which is created by them or working with the employers. The facility in the workplace creates an impact on the overall well-being of an individual. Hence the quality of workspace is an important factor in determining the mental health of an individual. Quality of work life balance is related to quality of workspace also. Occupational stress is one of the major factors which is affecting the quality of the workspace as well as the productivity of an employee. This study aims at finding the stress factors and its impact on work life balance of IT employees in Kochi, Kerala. Occupational stress arises due to many factors such as strict policies of the employer, individual or group conflicts, restricted growth conditions, imperfect management, Role Conflict and ambiguity etc. Different shifts since they are working in different time zones, tight deadlines, client requirements, billability of the projects, lengthy working hours are also some of the major factors contributing to the occupational stress of employees working in the IT Sector. Any of these factors hinder the growth of an individual and his overall productivity which leads to poor performance and lack of motivation in life. As years pass by, now people are investing more time on their physical and mental well-being. In the office space, employers also introduce several methods to reduce the occupational stress of their employees. IT Sector in India is one of the major sectors which contributes 8% of the GDP and is providing employment for one million or more people in India. The IT companies are majorly Multinational Companies (MNC) working for different clients all over the world. Huge workforce demands more attention, and the Human Resource department must take care of the overall well-being of the employees. To understand the quality of work life level and to investigate the impact of occupational stress on quality of work life among Information Technology employees in Kochi, a study was conducted and gathered data based on questionnaire and interview with the IT employees. Probability sampling was used to collect the information and the results of the study showed that information technology staff have average level quality of work life balancing and the occupational stress level is very high due to the factors like the type of project, long working hours, Role conflict, job insecurity especially during the pandemic time, higher job responsibility and full time work from home options etc. Hence, it can infer from the study that occupational stress has a negative impact on the quality of work life balance of an employee. The study also revealed that the level of income is also a factor for consideration for securing IT jobs. IT professionals are earning a very good level of salary compared with other jobs but having a poor degree of balancing.

Keywords—*Information Technology, IT Employees, Occupational Stress, Quality of Work Life, Role Conflict, MNC, GDP, Workforce*

Introduction

Working people are spending their majority of active time in workspace created themselves or by an employer. The facility in the workplace creates an impact on the overall well-being of an individual. Facility doesn't mean physical infrastructure and amenities. The mental peace of an employee has some dependency in the physical and working atmosphere of a workspace. Hence the quality of workspace is an important factor in determining the mental health of an individual. Quality of work life balance is related to quality of workspace also. Occupational stress is one of the major factors which is affecting the productivity of an employee. Occupational stress arises due to many factors such as strict policies of the employer, individual or group conflicts, restricted growth conditions, Role Conflict, and ambiguity etc. Any of these factors hinder the growth of an individual and his overall productivity which leads to poor performance and lack of motivation in life. As years pass by, people are investing more time on their physical and mental well-being. In the office space also, employers also introduce several methods to reduce the occupational stress of their employees. "The IT industry accounted for 8% of India's GDP in 2020. According to STPI (Software Technology Park of India), software exports by the IT companies connected to it, stood at Rs. 1.20 lakh crore (US\$ 16.29 billion) in the first quarter of FY22" (IBEF 2022). The IT-BPM industry is yielding increased revenue over years and is one of the fastest growing sectors in India both in terms of employment and revenue generation. According to the statistics taken in 2021, IT -BPM sector had over 4 million employed personnel. This year it added 4.5 lakh new employees which is the highest addition in a single year and in that woman constitutes 44%.

The job opportunities ascending from the IT -sector is a great reprieve to the sophisticated young minds of India and they are fascinated to this sector for numerous reasons. Attractive salary, improvement in the quality of living, remote working facilities, international exposure are some among them (Preethi et.al 2018). The industry demands long hours of work which arises due to the urgency in projects, foreign client meetings, target oriented so on. The balance between work and life is getting affected in this way (Anand, Vivek et al 2012). All these factors lead to the increase of Occupational Stress affecting the overall productivity of the employees. Along with that, Covid-19 pandemic created a drastic change in the work hours and the pattern of working. Even though it affects the entire world, the employees working in IT Sector were forced to work remotely which also results in the increase of occupational stress.

Occupational Stress

Occupational Stress or job stress can be defined as the damaging physical and emotional responses that happen when the basic necessities of the job do not match the competences, resources, or needs of the workers. According to National Institute for Occupational Safety and Health (NIOSH) explains that reducing occupational stress is a fundamental focus of any employer and the ongoing pandemic situation created few more factors to surge the level of stress. Some of the factors which normally influence the occupational stress such as independence and autonomy, level of responsibility, decision making matrix, work load,, security and stability of job,

physical environment and safety, the nature and speed of work, and relationship with team and team leads have got considerable change in this time.

Determinants of Occupational Stress

Recent study by the American Psychological Association, which was published in the Forbes magazine, found out that there are top five major causes for stress. They are Money, Job Pressure, Health, Relationships, and Poor nutrition. The major components that cause job pressure are conflicts with co-workers, work overload and bosses. It is also common to worry whether the delivery of work is satisfactory or not. Other internal stressors can include fear of failure or perfectionism.

Review of literature

Occupational Stress defined by Leka, Griffiths and Cox (2004) is “the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope”. According to the literature, occupational stress has been theorized as a state in which work related factors which cause a change in a persons’ physiological or psychological conditions so much so that the person is made to stray from the normal working conditions (Beehr and Newman, 1978). Comish & Swindle (1994) found out that stress is a mental as well as physical condition that affects an individual’s personal health, effectiveness, productivity, and quality of work. Stress ascends when a person doubts his capability to deal with threats to their security as well as his ability to meet the demands accurately which are being made on him (Carlson, Grzywacz & Zivnuska, 2009).

Work-life Conflict as defined by Higgins, Duxbury & Lyons (2001) is a “form of inter-role conflict in which work and family demands are mutually incompatible, meeting demands of both the domains is difficult”. One cannot neglect work-life balance as a crucial issue for a working person not because of its benefits only but also because of its ill consequences that could generate with work- life imbalance. Arandelović & Ilić, (2006) defined Workplace Stress as conflict between employee’s demands of job and degree of control employee can exert to accomplish these demands results in a harmful mental and physical response. Stress in the workplace is very expensive and keep on increasing especially in the IT sector. Causes of stress in the workplace are many that include a different and complex combination of social, physical and psychological components. The level of stress is difficult to measure and it is different to different persons. The level of stress varies with the industries also. IT being an industry having varied pool of human resources from varied culture, stress management in work place is a matter of great concern.

It is observed that, IT employees are spending more time on their workplace. It is obvious that stress arises considerably which leads to unhappiness as well as ill health among employees. (Blaug, Kenyon, & Lekhi, 2007) Stress is not just a part of the job, a thing to be ignored or a price paid up for career success it is found to be a cause of various stress related illness either directly or indirectly. Unhealthy work environment effect employee’s health both mentally and physically. Many organizations seen stress as an indication of weakness and in order to avoid negative brunt kept it hidden. Stress is mostly ignored by people who are at the position to manage it. (Melanie Bickford, 2005).

Preethi, Narendra, Easel(2018) found out that Work-Life Balance Practices are very much essential in Organization to retain talent employees to be effective and productive in personal as well as in professional goal. The employer has to adopt some major policy changing matters to retain their employees and to maintain their work life balance. Infosys, Accenture, TCS companies have adopted some of these kinds of initiatives to help their employees to maintain their work life balance.

Objectives of the study

1. To identify the diverse factors of occupational stress among IT professionals who are working in various IT companies in Kochi, Kerala.
2. To analyze the impact of occupational stress on the quality of Work life balance of IT employees.

Data analysis and interpretation

The primary data for this study was collected from IT employees working in the IT Parks of Kochi. A structured questionnaire was outlined using Google forms and disseminated online among 350 IT professionals working in various MNC's out of which 300 responded. Here in this research, the researcher used the Convenience sampling technique for the study. Self-administered questionnaires were given to the respondents. The questionnaire consists of three parts, first part includes personal questions and demographic information, second deals with work life measurement factors in Hayman 2005 proposed 14 scales questionnaire and third section deals with Occupational stress related factors and it is formulated through 5-point Likert Scale ranging from Strongly agree to strongly disagree. Statistical Package for Social Sciences (SPSS) tool was used to analyze Descriptive Statistics, Correlation and Regression to draw the results of the study.

1. Demographic Characteristics of the respondents Table: 1

Age group	N	Percentage
Below 25	16	5.33
26- 35	114	38
36-45	142	47.33
46 and above	28	9.33
Total	300	100

Table 1 represents Age group of the respondents working in various IT companies in Kochi, Kerala.

The age group is categorized in to 4 groups. Majority of the respondents belong to the group of 36 -45 years of age and second group belongs to the category of 26- 35 years.

2. Martial Status of the respondents

Table: 2

Sl.No	Marital Status	N	Percentage
1	Married	221	73.67
2	Not Married	57	19
3	Divorced /Death of spouse	22	7.33
	Total	300	100

Table 2 represents the Martial status of the 300 respondents. It is from the table it be found out that 221 respondents are married, 57 not married and 22 respondents are either divorced or lost their spouse. They represent the percentage of 73.67,19 percentage and 7.33 percentage. From the table it can infer that majority of the respondents are married.

3.Work life measurement factors which is causing occupational stress

Table : 3

Variable	Items
X1	Long Working hours
X2	Out of Control
X3	Support
X4	Workload
X5	Fear of Layoff
X6	Social Isolation
X7	Lack of sleep due to hectic work schedule
X8	Kids Responsibility
X9	Lack of career advancement opportunities
X10	Out Sourcing
X11	Lack of Privacy
X12	Health related issues
X13	Poor Work and Life Balance
X14	Financial crisis
X15	Distractions

X16	Targets /deadline pressure
X17	Work related pressure
X18	Salary cut
X19	Lack of proper resources
X20	Negative Influence of Social Media

Table 3 represents the Code numbers and Items. The above 20 variables are taken as point of discussion among the IT professionals and while filling the questionnaire, the questions related with the above factors are considered. Each item has been given a code ranging from X1 to X20. For grouping the factors under various heads like job pressure, Job insecurity, Poor Work environment and Personal problems, these codes are used instead of the description.

Exploratory Factor Analysis for Occupational Stress

Table: 4

Factor Name	Item code	Factor loadings	Eigen value	Percentage of variation
Workload	X1	0.838	5.613	28.56
	X17	0.812		
	X16	0.813		
	X4	0.774		
Job Insecurity	X8	0.846	3.021	12.326
	X5	0.823		
	X9	0.819		
	X10	0.781		
Poor Work Environment	X11	0.862	2.38	11.23
	X19	0.854		
	X3	0.841		
	X6	0.847		
Personal Problems	X14	0.812	1.98	8.73
	X12	0.754		
	X08	0.732		
	X13	0.719		
Lack of Organization Structure	X2	0.801	2.09	6.56
	X15	0.774		

	X20	0.781		
	X7	0.773		
Cumulative percentage of variation				67.406

From the above Table 4 with codes, it is observed that 20 points were considered to be the factor for causing occupational stress and is affecting the work life balance of the employees. Since there are multiple variables, Exploratory factor analysis is used to identify the common factors that explain the order and structure among measured variables. The 20 items from the questionnaire has been taken and given variable codes. Any items which is having a factor load below 0.50 is been omitted. In this case every variable with a factor load more than 0.50 factor is been accepted and Principal Component analysis reduced these 20 variables in to 5 factors. The factors that have taken for consideration is Poor Working Conditions, Job Insecurity, Personal Problems, Workload and Lack of proper structure. These 5 factors have eigen value more than 1. The level of variance is 67.406.

Relation with Work life balance and Occupational stress

Table 5

Correlation between occupational stress and Work life balance

Variables	Methods	Work life balance	Occupational Stress
Work life balance	Pearson Correlation	1	-0.663
	sig 2 tailed		0.01
	Pearson Correlation	-0.0663	1
Occupational Stress	sig 2 tailed	0.01	

Inoder to find out the relation between the occupational stress and Work life balance

Pearson Correlation method is used. In this method it measures the relationship between the two continuous variables, Occupational Stress and Work life balance. Pearson’s correlation analysis gives proper information about the magnitude of association between the two variables and the direction of their relation. From the above table, it can infer that there is a strong negative relationship between work life balance and occupational stress for employees working in the IT sector. A change in one variable is strongly correlated with changes in other as the coefficient value is -0.663. The Sig. (2-tailed) value here is 0.01. This value is less than 0.05. It can be concluded that there is a significant correlation between the level of work-life balance and the level of occupational stress. From the above analysis and interpretation, it can be concluded that the employees who are working in the IT Sector are having an imbalance in the work life balance and from the exploratory factor analysis 5 major

factors which leads to occupational stress are identified. The Pearson Correlation analysis identified the strong correlation between the Work life balance and Occupational Stress.

Conclusion

Work life balance and Occupational stress are the two major factors which are affecting every working personnel. These two factors affect the work life of persons to a great extent. IT sector is creating a lot of job opportunities to youngsters of our country but managing the stress and having a proper balance between Work and personal life is always a question to the employer and employee. If the rates of both are high it is negatively affecting the overall productivity of an employee. It is strongly suggested that some stress reduction models should be adopted to reduce the occupational stress.

Reference

1. B.Subha; R. Madhusudhanan; and Thomas, Ajai Abraham (2021). An Investigation of the Impact of Occupational Stress on Mental health of remote working women IT Professionals in Urban Bangalore, India. *Journal of International Women's Studies*, 22(6), 139-149. Available at: <https://vc.bridgew.edu/jiws/vol22/iss6/14>
2. Leka, S., Griffiths, A. & Cox, T., "Work Organization & Stress, Systematic Problem Approaches for Employers, Managers and Trade Union Representatives", 2004. http://www.who.int/occupational_health/publications/pwh3rev.pdf.
3. Beehr, T. A., & Newman, J., "Job Stress, Employee Health and Organizational effectiveness: A Facet Analysis Model and Literature Review", *Personnel Psychology*, Vol.31, pp. 655-669, 1978.
4. *Asian Journal of Management Research*, Research Article ISSN 2229 – 3795, February 2015, by Vijayakumar Bharathi. S, Padma Mala. E, Sonali Bhattacharya.
5. Stress Management Policies adopted by the IT Companies- An overview, by Ipseeta Satpathy and Bonita Mitra, September 2015 [researchgate.net/publication/282331582_Stress_Management_Policies_adopted_by_the_Companies_An_overview](https://www.researchgate.net/publication/282331582_Stress_Management_Policies_adopted_by_the_Companies_An_overview)
6. Preethi Narendra, Sema sharma & Laesal Fernandes, "Work life balance of IT Professional", *International Journal of Latest Engineering and Management Research (IJLEMR)* ISSN: 2455-4847 www.ijlemr.com ,Volume 03 - Issue 03 ,March 2018, PP. 07-17
7. Arandelović, M. & Ilić, I, "Stress in Workplace - Possible Prevention", *Facta Universitatis*, Vol. 13, Issue. 3, pp. 139- 144, 2006. [34] Blaug, R., Kenyon, A., & Lekhi, R., "Stress at Work.
8. A Report Prepared for the Work foundation's Principal Partners", 2007.
9. http://www.theworkfoundation.com/downloadpublication/report/69_69_stress_at_work.pdf.
10. Anand, Vivek & Dash, Mihir & Gangadharan, Ashwini. (2012). Perceptions of Work-Life Balance Among IT Professionals.

IMPACT OF COVID -19 ON TOURISM INDUSTRY - MANAGEMENT REVIVAL STRATEGIES IN INDIA

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Abstract

The Covid 19 pandemic impacted on tourism sector with high uncertainty. This pandemic is one of the most dangerous outbreak in human history, with more than 273 million cases and 5 million death. Which leads to great damage on tourism sector by bringing down to 80% of International tourism. The result of many studies found that the Covid 19 pandemic caused the tourism industry to experience dormancy, Tourism stakeholder who financially suffered shifted to other sectors. To recover the damage done by this pandemic, many countries now developing plans to support the sustainable recovery of tourism. The process of vaccinations light up the hope on tourism. It necessary that to gain trust to feel people can travel safely so that it can restart the halted industry of tourism. The findings of the study advices that tourism industry to promote safe & hygiene conditions for people by giving confidence in Innovative promotions.

Keywords: Global Global economic order, Local belongingness, COVID-19, Innovation, Resilience, Tourism, Recover, GDP.

Introduction:

The COVID-19 pandemic has claimed lives and destroyed livelihoods all across the world. From January 30th, 2020, the Novel Coronavirus will be present in our country. Despite the lockdown ordered by our Honorable Prime Minister, the instances began to rise sharply in our country in the first week of April. Now that Lockdown has begun, the total number of people affected has risen to almost 2, 46,000, including 7200 deaths in India. Every day, the numbers are poised to grow with the release of a new health bulletin. The issue is that 88 percent of the patients are described as asymptomatic. TheCovid 19 pandemic has caused a huge fall in all industries, from agriculture to textiles to tourism, resulting in a complete economic meltdown.

The pandemic has had an impact on industries across the board, but the travel and tourist industry has been hit the worst owing to plane cancellations, train closures, hotel closures, and other business closures.

The travel and tourism industry has demonstrated its relevance as a global economic growth engine.For the ninth year in a straight, the industry's growth rate has outpaced that of the global economy.In 2019, the industry increased at a pace of 3.5 percent, compared to 2.5 percent for global GDP.

The industry generated USD 8.9 trillion to global GDP and created nearly 330 million jobs, or one in every ten, that year, accounting for 10.3 percent of overall GDP.

One of COVID-19's most visible effects in the hotel and tourism industry has been on the airline and transportation industries.Prior to the COVID-19 pandemic, tourist sites including as Venice (Italy), Barcelona (Spain), and Kyoto (Japan) were experiencing overcrowding to the point of overtourism.COVID-19 wreaked havoc on the travel and hospitality industries, as domestic and international guests cancelled planned excursions.As COVID-19 progressed, practically all countries implemented border crossing restrictions as part of their national emergency plans (ILO, 2020a).Employees of

airlines and transportation businesses around the world have been encouraged to take paid or unpaid leave and accept lower pay. COVID-19 has had a significant impact on the hotel industry as well. To prevent the virus from spreading further, local and federal governments have enforced bans on pubs, cafes, and hotels. In Europe, around 33% of hotel company losses are expected. Hotels in the United States are facing cancellations, which are likely to result in the loss of four million jobs. Meetings, incentives, conferences, and exhibits (MICE), among other events, have been severely impacted, cancelled, or postponed around the region. Nearly 30 airlines, including German Airways and Thai Airways, filed for bankruptcy as the pandemic reached its zenith. Many airlines, including Indigo and Emirates, had to cut salaries and lay off employees (The Indian Express, 2020). In 2020, airline revenues globally will be down 44% from the previous year.

The Indian Tourism Industry

The Indian tourism industry is classified into five categories. The number of domestic travellers who visit places within and outside India during peak season (April to September), foreigners who visit our country during peak season (April to September), foreigners who visit our country during off peak season (November to March), Quick Getaways for a short family trip (as preferred by the current generation), and finally business travellers, both domestic and foreigners, who travel throughout the year.

According to the Indian Mirror, there are 5 million foreign tourists arriving each year and 562 million domestic tourists. Every year, visitors come from all over the world to sites like Goa, Shimla, Kerala, Chennai, Coorg, The Nilgris, and many others.

It has a global market share of 6.5 percent. The importance of cultural variety has been increasingly understood. As things now stand, the peak season time has seen a drop of more than 85%.

It's worth noting that the Indian economy is heavily reliant on tourism. In 2018–2019, Indian tourism generated Rs 16.91 lakh crore (US\$240 billion), or 9.2 percent of India's GDP, and contributed to roughly 42,673 million jobs, accounting for 8.1 percent of the country's total employment, which has climbed to 12.1 percent in 2019–2020. Now, just as it appears that this will continue to rise, there is a dramatic fall in the front. According to the Federation of Associations in India Tourism and Hospitality (FAITH), almost 70% of a total population of 6 crores are unemployed.

The impact on Tourism Industry

The Indian airline industry is likely to be the most affected by the COVID19 epidemic. The expansion of low-cost airlines is predicted to boost domestic tourism in 2019. The aviation business in India has significant fixed costs of around 35-40%. Leasing, rentals, worker wages, and interest are all included in these prices (Arshad Khan, 2020). Low-cost flights under the UdeDeshkaAamNaagrik (UDAN) scheme are expected to connect the country's regions and encourage domestic tourists. India's airport authority also wanted to open 250 airports across the country by 2020. In India, there were 132 airports in operation as of 2019. Domestic and international airline passengers in India climbed by 14.1 percent and 3.4 percent, respectively, in 2018-19. The number of passengers passing through Indian airports is estimated to reach 450 million by 2020. During COVID-19, airline service was severely disrupted. For vulnerable airlines, the two-month lockdown was dramatic, as they struggled with low profit margins, liquidity difficulties, fixed costs, and mounting debt.

The COVID-19 pandemic has afflicted airline employees as well. Due to the economic downturn, Air India has cancelled job offers for roughly 180 trainee cabin crew workers. Due to the lockout, IndiGo, India's largest airline, has halted operations for several months. To combat poor profitability, it has stated that 10% of its workforce will be laid off. The airline, which employs roughly 24000 employees, will gain about 2400 jobs as a result of the 10% increase. Other smaller airlines have experienced similar issues and are planning to take similar steps to avoid insolvency. In addition, as compared to other countries, Indian airlines emphasize their danger of going bankrupt. By 2020, it could account for half of an airline's income, wreaking havoc on the aviation industry and jeopardising airline jobs.

"2020 is the Horrible year in aviation history, airlines are in survival mode," said Conrad Clifford, IATA Vice President for Asia Pacific. Furthermore, the impact of COVID-19 is predicted to be the highest loss for airlines in the Asia Pacific region, with yearly losses of nearly US\$ 29 billion, accounting for roughly one-third of the global aviation sector's US\$84.3 billion. Across addition, passenger demand is predicted to drop by 53.8 percent in the region.

When looking at the growth rates of various industries during the lockdown, the manufacturing sector was down 39.3 percent, the commercial, hotel, transportation, and telecommunications sectors were down 47 percent, and the construction sector was down 50.3 percent. The agriculture industry only grew by 3.4 percent during the monsoon season in 2019, compared to the previous year. Between April 2000 and June 2020, the hotel and tourism sector received a total of US\$ 15.48 billion in foreign direct investment (FDI). The effect on the hotel sector is due to Indians' national and international flight cancellations, rail cancellations, hotel reservation cancellations, travel agency closures, transportation halts, and artisan showroom closures. Due to the lockdown imposed by COVID-19, the TATA Group's luxury hotel network is significantly cutting costs. "The sector has never suffered such a fall in revenue in the last 100 years," said Puneet Chatwal, Chief Executive Officer of Indian Hotels Co Ltd. COVID-19 has left an indelible mark on temples and shrines. Thousands of pilgrims were unable to travel to temples or shrines to pray. As a result, temple or shrine revenue, linked company income, and local government social tax revenue have all fallen. In addition, star hotels' business in pilgrimage encompassed luxury hotels, ordinary hotels, and pilgrims' accommodations, all of which had to be shut down at the same time. In India, temples are always crowded, and the COVID-19 virus has infected a large number of temple staff. Many full-time and part-time employees labour in temples and pilgrimage sites around India. COVID-19 has made it difficult to find personnel for these jobs. The Tirupati Balaji Temple, which employs 14,000 people (TTD, 2021), has a substantial negative influence on the employment of employees. The administration of the Padmanabhaswamy Temples also withheld 20% of the salaries of 150 staff.

Tourism Sector Revival Strategies

Many states have made recommendations to experts on what might be the template for reviving the industry and how to move forward. Motivation through encouragement and demand through Desire, according to experts, should be used at the start of some of the sequential steps toward redemption. A multi-stage action plan is being developed that will kickstart the industry. The significant will be on hyper tourism, which will encourage intra-state travel to places like beaches, fancy malls, historic attractions or buildings and finally international travel, such as visits by grandparents or group tours. The first round of promotional efforts has already begun in areas around the world, such as Switzerland,

Singapore, and New York, and is being carried out via intra-district visits. Online meetings and virtual tour discussions with stakeholders are taking place, and it is being taken into account. "Safety" and "Hygiene" are the two magic phrases that will be disseminated to tourists as a promotional tag line. One can also reach out to the target audience via social media platforms like as Facebook and Instagram. Following the Lockdown, some of the suggestions included encouraging meetings, conferences, exhibitions, and adventure sports in the state.

On their part, the stakeholders have requested a one-year moratorium on loan repayment, as well as a reduction in GST slabs for hotels and restaurants, an entry waiver tax for tourist cars entering the state, and soft loan conditions. The Indian government has declared that roughly 200 trains will depart everyday beginning June 1st. They've also launched an online booking system. This will make it easier for individuals to travel inside the country, opening the way for revival. It is now their responsibility to make this useless and flowing. After the previous three months, some may choose religious travels, others may choose health and hospitality refreshments, and still others may choose a relaxing approach to enjoy scenic beauty. At this time, hotels that offer both boarding and lodging might provide low-cost accommodations. While the primary goal should be to ensure the health and safety of visitors, a secondary goal should be to maintain economic stability. Here, ecotourism is quite significant. Similar to how things were during the COVID time, there is also a need for protection of our flora and fauna, natural greenery, and less pollution. At this time, one should also look forward to reviving our country's rich culture. At this time, hotels with boarding and lodging might offer low, economical rates. While the primary goal should be to ensure the health and safety of tourists, a secondary goal should be to maintain economic stability. Ecotourism is particularly significant in this area. There is also a need to safeguard our flora and fauna, our natural greenery, and reduce pollution, as was the case during the COVID time. At this moment, one should also look forward to building culture and reviving our country's rich legacy. For any recovery over the next few years, the hospitality industry, in particular, can minimise taxation on people by lowering visa fees, lodging fees, and other associated expenditures. Foreign travelers can get up to a 20% discount on locations to visit, hotels and restaurants, and flights if they book a bundled modern package. Offering domestic travelers a package of coupons and offers at a discount of, say, 40%. Assuring visitor comfort by providing last-mile connectivity to isolated locations for heritage and events tourists, taking into account the elderly. Creating a niche by promoting psychological tourist patterns through the concept of safety and hygiene.

Conclusion

COVID-19's impact on India's hospitality and tourism industry, as well as its current state. It has been confirmed that the epidemic has had a considerable impact on the Indian tourism sector, particularly the airline, hotel, and pilgrimage tourism sectors, as well as daily-based workers in the local community. Furthermore, the tourism sector's employers, as well as employees, are in peril as a result of the lockdown and travel restrictions. Furthermore, not only in India, but throughout the world, this unusual situation exists. Revenues in India's aviation sector were halted before resuming. However, it is also true that reviving the hospitality industry will be tough for some time.

The Indian government, as well as tourism industry partners, have problems in reviving the economy following the pandemic. Although the rate of expansion may be modest, it is believed that the tourism industry will eventually overtake the other industries and reclaim its former glory in a few years.

References

1. Cheer, J. M. (2020). Human flourishing, tourism transformation and COVID-19: a conceptual touchstone. *Tourism Geographies*, 22(3), 514–524. <https://doi.org/10.1080/14616688.2020.1765016>
2. Dash, J. (2020). Covid-19 impact: Tourism industry to incur Rs 1.25 trn revenue loss in 2020. Retrieved December 12, 2020, from Business Standard website: https://www.business-standard.com/article/economy-policy/covid-19-impact-tourismindustry-to-incur-rs-1-25-trn-revenue-loss-in-2020-120042801287_1.html
3. Dogra, S. (2020). COVID-19: Impact on the hospitality workforce. Retrieved December 12, 2020, from EHL website: <https://hospitalityinsights.ehl.edu/covid19-impact-hospitality-workforce>

GROWTH OF WOMEN ENTREPRENEURS IN THE FISHERIES SECTOR OF KERALA

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Abstract

This paper explains how women, who have consistently played a significant role in the economic development, in the fishing sector, are now in a position to contribute significantly to fisheries management. More women pursue education and are getting training in this area. With its training and manufacturing facilities, well-known products, and many aquaculture products shows a significant growth of women in this sector. MATSYAFED initiative taken by Kerala also merits special recognition for initiating numerous programs for the improvement of the fishermen folks. The performance of these projects must serve as an example for other groups, especially exploited and disorganized women like those working in the fish processing sector, to organize and establish businesses where they can become their own bosses, by bringing more entrepreneurial opportunities. New technologies are transforming the nature of occupations and the worker makeup in the modern day. The need of a coordinated strategy to bring the advantages of science and technology to women in order to make them equal partners in development cannot be overstated in a progressive society.

Keywords: *Entrepreneurship, Fisheries Products, Women in Kerala fisheries sector.*

1. Introduction

Fish and seafood products are an essential element of many cultures' diets and a vital economic business, and women work in both artisanal and commercial fisheries. Their activities range from artisanal fishing in shallow water to waged labour in the commercial fishery industry. Women contribute significantly to national and family food security, as well as to the countries' foreign revenues, in such a diverse variety of activities. Women catch prawns from backwaters in areas of India. Women's engagement in the fishing industry appears only after the catch has been landed. This might be a custom that arose from the necessity for relaxation and support for the menfolk after a lengthy period of hard toil in the water. Until about a decade ago, fish retailing was mostly a female domain throughout the country, both on land and at sea.

Women's empowerment is a critical development in the country's economic landscape. Entrepreneurship is at the heart of economic progress. It is a multifaceted task that is mostly creative in nature. It may be claimed that we are now in a better situation, with increased engagement in the sphere of entrepreneurship. Women entrepreneurs are described as the women or groups of women who start, organise, and run a business. The impulse is motivated by a desire to make autonomous decisions about their life and profession. India has 21% of the world's fishermen and 24% of the world's fish growers. The women have stepped out of their niche and are in the field to compete with men. This will enable them to participate productively and independently to improve their family's nutritional and living standards. This situation has to change and women should be considered as equal partners and productive participants in fisheries activities that will improve their own and their family's nutritional and living standards. In some cases, they may even be the main source of family income as urban male migration and other social problems have led to an increased number of permanently or temporarily

women headed households. The fisher women have multifaceted tasks to perform not only in fisheries but in their families' and communities, yet their role is remain unrecognized. Women have an important role in the fisheries industry by participating in fish-related activities such as vending, drying, value addition, packaging, and marketing. Women constitute about half of India's total population and one-third of the labour force. It is also believed that over 50 million women worldwide work in fisheries. Women constitute about half of India's total population and one-third of the labour force. It is also believed that over 50 million women worldwide work in fisheries.

According to **Shalumol Salas et al. (2017)**, the study suggests that SHGs have a larger role in enhancing women's empowerment by keeping them financially strong, more confident, and assisting them in making sensible decisions. Only two empowerment criteria were connected with training and extension contacts, indicating that other factors such as amount of engagement in entrepreneurial activities play a significant role in empowerment. However, considerable work has to be done to increase the participation of extension contacts, develop a financial literacy training programme, and establish a subject matter expert (SMS) on fisheries extension in each district to plan, monitor, and assess SHGs. Women participate in a variety of fishing activities, albeit the extent and kind of engagement varies depending on local cultural factors. Rural women's participation in small-scale aquaculture might supplement

OBJECTIVES

1. To understand the various entrepreneurial developments in the fisheries sector.
2. To study the opportunities and constraints faced by the women in the fisheries sector.

METHODOLOGY

The study is descriptive in nature. Secondary data and primary data has been used. Primary data was collected from the fisherwomen community on random basics in and around Kerala. Aroor, Neendakara, Thekkumbagham, and Poovar.

DISCUSSIONS AND FINDINGS

Women in the fisheries sector have a variety of tasks, including decision making, small scale, aquaculture, seafood business, and collecting. Though the position of women in Kerala has improved significantly as a result of education, the situation of fisherwomen remains deplorable. The primary reasons for women's participation include poverty, less work prospects, a lack of education, widowhood, the need to support their husbands, descent from fishing families, and so on. The type and level of women's engagement in aquaculture differ widely from place to place, and within a region, they differ among castes, religions, and family hierarchy positions.

The following statistical data shows about the various elements of Kerala fisheries sector

Sl No	Kerala State Fisheries Sector	Statistical Data
1	State Plan	19.63%
2	PMMSY	1.95%
3	Punegrahan (Number of Houses)	1213
4	Fishing Harbors	21
5	Number of Fishing Vessels	43298
6	Marine Fishing Villages	222

7	Fisher folk Population	10.49 Lakh
8	Registered Fisher folk	309806
9	Pensioners	64228
10	Farms and Hatcheries	31
11	KCC Beneficiaries	1171

Source: Secondary Data

Roles of Women in the Small scale fishery Pre harvest

Fishing industry and marketing are two important activities in which women make a significant contribution throughout the country. When it comes to the processing industry, more than 90percent of the women work in prawn peeling. Approximately 70% contributes to the processing of other fisheries products. Approximately 26.92 percent of them work on the beach.

Women in southern India are proven to be well-suited to many of the new aquaculture operations, in addition to their well-established and traditional responsibilities in fisheries marketing, processing, and administration. Although women have demonstrated competence in adopting new aquaculture technology, their position is limited and sometimes neglected. The location of aquaculture sites, as well as socio-cultural taboos against women who work in rural areas to support their families, are major factors for this. The following are the various areas where women contributions are made;

- Repairing of the net
- Cutting and cleaning after harvest
- Salting and drying
- Catching
- Hand fishing
- Beach fishing
- Peeling, Curing etc

Matsyafed is a project started by the state government with the goal of ensuring the social and economic growth of the fishermen community via the implementation of several schemes aimed at encouraging the production, procurement, processing, and marketing of fish and fish products.

'Matsyafed' has joined forces with 'Kerala Fisher Folk' to preserve a productive and sustainable fishing that is dedicated to the conservation and replenishment of fishery resources. We have established a track a record in the investment of technology, equipment, manufacturing, procurement, and marketing.

ENTREPRENEURIAL OPPORTUNITIES

With the advancement of automation, motorization, and communication, women can now participate in effective fishing in the coastline inshore sector if proper training is provided. Women's participation in all forms of aquaculture activities should be promoted. The following are significant opportunities for women in the fishing industry:

- Backyard ponds with integrated fish aquaculture.
- Aquaculture of ornamental fish
- Pearlsport monoculture
- Pearlsport monoculture
- Oyster culture, Mussel culture, Pearl culture, Crab fattening and culture, and so forth.

IMPORTANCE OF TRAINING

In rural areas fish culture and fish seed production generate self-employment, wealth and protein rich food. Aquaculture programmes are gaining popularity among agriculturists in water-logged locations. Landless labour and tribal people who live near reservoirs have turned to fishing and fish marketing in order to maximise production from the unit water area by offering manpower training and making quality fish seed available in rural regions at the desired time and location. Rural people's support for fisheries development has been positive in several states. Aquaculture is a good technology for rural women because it is consistent with the physical ability and general ability of rural womenfolk, it is simple to implement, and it is economically profitable. There is just a little demand for investment capital and a minor need for labour time.

Aquaculture activities can be conducted by rural women at a convenient time without interfering with their main vocation and home obligations. Science and technology's influence on society has not been consistently good, but it may validate women's knowledge and abilities derived from their participation in food production. Traditional therapeutic techniques and natural resource management, as well as modern technology that can improve their marketing potential and competence. Women in agriculture, environmental resource management, and health have a significant quantity of local traditional knowledge. Thus, women's empowerment by fisheries activities had major consequences and raised knowledge about how to improve their outcomes through the sharing of research findings and information leads.

CONCLUSION

In summary, the report demonstrates that women dominate the global fish processing business. Women entrepreneurs face challenges at the start-up and management phases of their businesses. Women entrepreneurs faced financial, marketing, and production obstacles, among other things. Efforts are being made at the national and global levels to increase women's participation in the entrepreneurship sector. However, only a tiny percentage of women have benefited from government assistance. The major constraints faced by women in fisheries include limited access and control over resources, knowledge, training programmes, financial services, equipment, time, little or no influence on decision making, particularly in the public sphere, a lack of proper infrastructure and support facilities for marketing and processing, and so on. The study focuses on the employment prospects and challenges that women entrepreneurs encounter in areas such as finance, training, production, socio-personal, and so on.

SUGGESTIONS

Opportunities will never come to our end, the fulfilment of our existence comes to a decision how devoted we're one have to continually hold a song on the brand new strategies and the marketplace linkages. In Kerala we've got an amazing wide variety of companies to help our women entrepreneurs. Location based and compulsory schooling programmes have to be organized. Promotion of various small scale industries generating feed delivered merchandise will boost up profits in exports, and offer a multiplier impact on employment and consequent monetary independence and empowerment.

Aquacultural programmes rely heavily on the availability of fish seed and other vital inputs. It's important to make sure to create active cooperation among R&D institutions, agricultural colleges, state governments, fisheries departments, and marketing agencies in partnership with volunteer groups to create high quality fish seeds and good trainers for the upliftment of the fisher folks. Women interested in aquaculture would naturally have

to rely on others to obtain such important supplies. The authorities should ensure the facility for quality maintenance, proper storage, and long shelf life for these diversified fish products.

To provide financial assistance by relevant agencies to trained women to enable them to form cooperative societies to start their production units, Workshops and meetings should be organized to cultivate awareness on gender equality in the community and among people working for aquaculture development. Effective training on need-based technologies before setting up any project is a very important step, while dealing with the womenfolk, particularly from the far off villages, it often becomes problematic to organize their on-campus training programme, under such situations, and the training programmes have to be organized at the village itself with very limited scope for practical demonstrations. Extension programmes launched for the womenfolk in rural areas are often very difficult to manage unless there is a well-versed lady in between to act as a negotiator.

References

1. Census. 2001. Gender composition. Office of Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India
2. Reji. 2013. Economic empowerment of women through self-help groups in Kerala. *Int. J. Mark.* 2: 97-113.
3. Sharma, P., and Varma, S. K. 2008. Women empowerment through entrepreneurial activities of self-help groups. *Ind. Res. J. Extn. Educ.*, 8: 46-51.
4. Srinath, K. 1987. Role of women in small scale fisheries - A case study. *Mar. Fish. Infor. Serv. T&E Ser.*, 72: 12-17.
5. Shalumol Salas, S. N. Ojha, V. Ramasubramanian, V. P. Vipinkumar* and P. S. Ananthan. 2017. Entrepreneurship based empowerment among fisherwomen self help groups of Kerala. *Indian J. Fish.*, 64(4): 106-111, 2017, DOI: 10.21077/ijf.2017.64.4.63956-15.
6. Shaleesha, A. and V.A. Stanley. 2000. Involvement of rural women in aquaculture: an innovative approach. *Naga, The ICLARM Quarterly* 23(3):13-17.

A STUDY OF THE DEVELOPMENT OF GUYANA'S CORPORATE SOCIAL RESPONSIBILITY

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ABSTRACT

Guyana is one of the fastest developing nations in the world, with its production of crude oil causing its Economic growth to catapult from 5.53 percent in 2019 to 43.48 percent in 2020, a year in which the average economy per nation in the world was -4.86 percent. That was the highest reported leap of growth in any nation's economy for that specific year worldwide according to Global Economy.com (2020). This leap was due to major investments in oil in the country at the time in collaboration with Oil MNC's as indicated from reported FDI's in year 2018 to 2019 (US Department of States, 2020). The Government of Guyana reported that there was an increase of FDI in 2018- \$ \$1.18B USD and FDI in 2019 \$1.7B USD, furthermore, in the year 2018 there was a reported leap to FDI 260.6 percent from the year 2017 (Macrotrends, n.d). Due to the enhancement of the oil and gas sector since the continuous and aggressive offshore drilling of oil has commenced in the year 2015, it has become even more imperative that this research be conducted to study the effect of the MNCs as it relates to the province they operate in, and their contribution. Therefore, in this study focus has been placed on the development of Corporate Social Responsibility (CSR) policies of Guyana granted the fact that CSR is one of the mediums in which corporations themselves can give back to the economies which they heavily impact and depend on. Information and data have been gathered from secondary sources, with a large amount deriving from reputable websites, newspaper articles, the country's budget, and published articles. Some focus has also been placed on the rural development regarding same as the research notes that 73 percent of the populous in Guyana are based in rural areas (Trading Economics, 2020). Paper has been concluded with a model suggesting the elements that need to be implemented and the order in which to do so, so that there may be an effective CSR flow in Guyana. Additionally, it is suggested that stakeholders such as the populous within the country voice their main concerns so that the corporations would be more equipped with knowledge to meet these needs as opposed to the MNCs themselves having to directly decide how they choose to go about executing CSR, if they do in fact choose to do so.

Key Words: Corporate Social Responsibility, Caribbean, Guyana, Development, Economy

INTRODUCTION

Guyana is the only English-speaking country located in South America. Based on the history of the country, and its shared culture with the Caribbean, Guyana is also considered a Caribbean nation. It has been an independent nation since the year 1966. The population itself is 73 percent rural, thereby leading to the rural population being 575,871 people as per World Bank in the year 2020. Based on the rural population indicator, Guyana is the 22nd highest rural ranking country in the world (the global economy.com).

In 2010, it was estimated that the rural areas in Guyana were 207,343.42 sq km, and the Urban area was measured at 626.76 sq km (CEIC, n.d.) thereby meaning that Guyana's Urban area is 4.8 percent of the entirety of the country's area. This is primarily because the government and systems were generally centralized in Region 4, where the Capital, Georgetown is located.

Due to new findings of first oil, Guyana was elevated to being one of the wealthier and more stable economies in the Western Hemisphere for the foreseeable future as per the US Department of State (2020). The growth rate was -1.49 and it increased to 3.14 in the year 2015, when first oil was discovered. After, there was a continuous increase over the five-year period and by the year 2020, economic growth catapult from 5.53 in 2019 to 43.48 in 2020, a year in which the average economy per nation in the world was -4.86 and Guyana would have ranked highest in the world with regard to growth in GDP.

Oil itself, is not being extracted and manufactured by local governments due to the heavy investments of capital, but largely by large MNCs and other businesses. Additionally, the regulations regarding the Caribbean and oil production, especially with regard CSR. It has been argued that only companies with enough revenue or capital resources can engage in CSR (Khanna, 2001; Dasgupta et al, 2000)

Arya and Bassi (2011) defined CSR as the choice that corporations make to do the right thing both internally and externally. There are also external pressures brought on to the Caribbean Region, Guyana included, to incorporate CSR into their company's culture and policies in order to compete globally (SME Study). This then means that Caribbean companies that are interested in competing on the global market must comply to avoid any barriers of entry. (Shah, 2007).

Amba-Rao (1993) posited that CSR and environment would be a global focus in coming times. The first hypothesis will engage this theory since Guyana is home to 90 percent of pristine forest (Arsenault, 2021) and is located in the Caribbean where there are risks of natural disasters due to climate change (Intergovernmental Panel on Climate Change (IPCC), 2007 & Middelbeek et al., 2014). The second hypothesis looks at the impact of stakeholders (Holtbriigge, 2004) and how MNCs utilize CSR to give back to impacted communities (Ismail M., 2009). Third hypothesis has been based on Guyana's independence in year 1966. Research has been based on CSR 1966 to 2020 in an effort to study the extent of CSR policies development.

Research Statement:

To study whether there is improvement of CSR in Guyana from 1966 to the year 2021.

Objectives include:

- 1) Study of business' policy in Guyana as it relates to CSR,
- 2) To research the history and development of CSR in Guyana as per availability of secondary data gathered, and
- 3) To study feasibility of CSR best practices that can be implemented in Guyana

Hypothesis:

H1 Policy within Guyana will be geared more towards climate as opposed to other causes.

H2 Best practices in Guyana's CSR will include implementation from suggestions from stakeholders such as the community.

H3 There is development of CSR in Guyana from the year 1966 to present year 2021

Information regarding CSR is limited based upon research, and there have not been many studies specifically regarding CSR in this province. In addition, there is a deficit in knowledge regarding CSR as it relates to businesses of a much larger scale, and how they are being regulated. This paper will attempt to address these issues and author will attempt to provide solutions for same.

RESEARCH METHODOLOGY

Secondary sources were used and analyzed in this study with recommendations being made thenceforth; sources such as google engine were utilized through entering key CSR

terminologies and phrases that include CSR and Guyana. Emphasis has been placed on studying the CSR policies, programs, initiatives that are currently in place in Guyana. Research will be done based on Guyana's Company Law and Guyana's Corporate Society's Act. Key CSR terms (as per table 1) () have been used to determine the presence and consideration that is given by the government for CSR. See appendix A for correspondent occurrence of adapted key words (Thorisdottir, Thorey S; Johannsdottir, Lara, 2020).

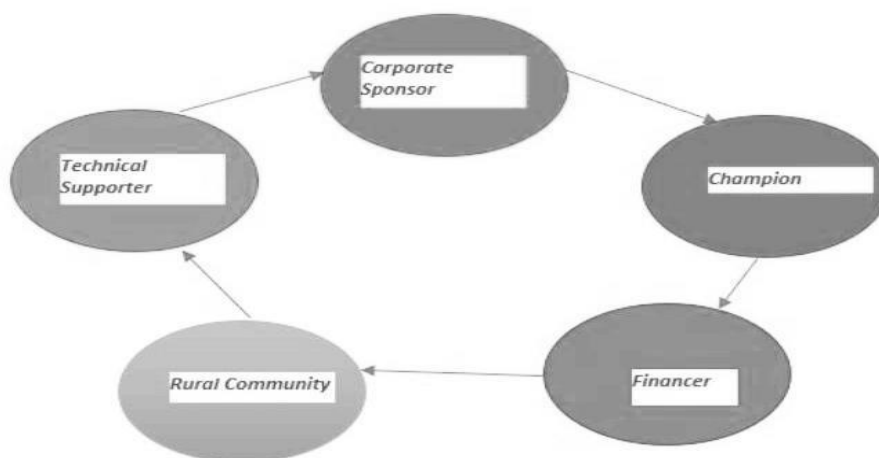
RESULTS

In the year 1996 Guyana was one of the first nations in the Caribbean to sign on to the Environmental Protection Act (EPA) which encouraged production without emission of harmful gases (EPA, n.d). Adherence to the EPA's mandates were not always met. Various infractions have been publicized regarding oil spills and refusal to pay fines (Jailall, 2020), poor disposal of waste materials (Stabroek News, 2022), a lack there of interest from the country's government to enact/engage EPA and additional empowering regional agreements (West Orland News, 2008), without full transparency regarding the reasoning behind this act. Guyana would later sign on to the agreement post its then perceived acts of hesitation. In their study, Mohabir & Joshi (2022) concluded that priority should be given to the environment in the Caribbean due to the region's natural disaster-prone location.

A Caribbean study was executed by United Nations Publications (2008) to study CSR. It was found that majority of the SMEs did not actually have any identifiable CSR policies and more than two thirds of those businesses did not report any CSR Related activities.

Corporations however, indicated that there was some form of CSR imbued in the policy, and advised the researchers that at least 1 percent to 5 percent of earnings per annum were budgeted towards CSR. However, when requested to discuss how these funds were expended, they were unable to identify same.

In the year 2014, Erwin Edwards, ventured into a study of CSR and implementation of electrification of the Rural regions within Guyana. In said study, it was suggested that focus should be made on creating dual relationships between the stakeholder and the Corporation, based on proximity, in order to form an alliance for the betterment of society. This type of relationship was termed as one that was collaborative, and on this basis, they developed a model termed 'Collaborative CSR Model' as can be seen below.



Guyana's CSR Collaborative Model

Note. This model was produced by Erwin Edwards in 2014, summarizing six elements that influence the formation of a CSR Collaborative CSR Model for Guyana. From “Guyana CSR Model, For Implementation of Corporate Social Responsibility in Rural Energy Systems in Isolated Areas in Guyana” by E. Edwards, 2014, For Latin American Energy Association (OLADE), p.23.

In another study, (Skill for green jobs in Guyana, 2018), due to the fact that Exxon Mobile is such a driving force in the economy, it was emphasized that Exxon mobile, the indigenous, utmost rural inhabitants’ representatives form an alliance for CSR, as this benefits both society on a whole, in addition to the mentioned parties further emboldening the previously mentioned point and contributing directly to the growth of the rural community. Additionally, as per article published based on the Director of CGX, an oil company in Guyana, he proposed that the Guyanese populous come forward and voice how they believe that major oil companies should use the funds allocated towards CSR in their budgets. He emphasized that granted the changes brought about by climate change, that that should be a cause citizens should demand as CSR since CSR is in fact executed for the benefit of the society as a whole (Kaieteur News, 2020). Therefore, we may also conclude that uniting and voicing a common and strategically beneficial cause is one method which can be implemented by stakeholders such as the populous so that both businesses and members in society can benefit.

In a study promoting research of Small and Medium Enterprises in the Caribbean, (United Nations, 2008), it was founded that Guyana was a sports-oriented country, as such, a great deal of influence and therefore CSR budgets was actually dedicated to sports activities. Additionally, a great deal of CSR was markedly dedicated towards social services thusly, activities that involved renovations to community centers, roads etc are also executed thereby creating and accomplishing a corporate presence, and establishing great external CSR since the corporations were able to connect with the society on a more personal level and engage them socially, whilst simultaneously creating great reputational value in that community. Companies in Guyana were notably acknowledged for 31 percent of them having anticorruption policies within their organizations. The study indicated that most companies’ managers believed that emphasis for CSR should be placed on natural disasters, implementation of efficiency, ensuring water quality and reliable supply, in that specific order of importance. This is contrary to the study that would have placed a great deal of emphasis on preventative methods for climate change and shifting assistance towards the aboriginal communities in addition to communities that are directly in proximity of the company themselves.

Additionally, the study also engaged the use of the term corporate environmental responsibility. It emphasized that different industries also have different environmental responsibilities, as such, because of the fact that the oil and gas sector is one that very often is a producer of greenhouse gases, then their Corporate environmental responsibility should be geared towards reducing the global warming and air pollution. It was founded that 50 percent of the companies did not keep records of the works completed as it relates to Corporate Environmental Responsibility. In addition, there were only 27 percent of stakeholders that would be able to gain access of records if available in the energy sector. The energy companies indicated that their CSR closely engaged those in communities that were in close proximity of them. In the year 2019, the Government of Guyana implemented the Natural Resource Funds (NRF) act based on the increase of income from the oil and gas industry for the people of the nation. In the year 2021, a revised version of the NRF was implemented due to transparency and accountability issues to mitigate associated risks.

According to the Department of Public information (2017 & 2021), various initiatives were launched by both governmental agencies, and corporations with programs aimed towards apprenticeship and the development of the youth were reported. This exhibits knowledge and execution of CSR in Guyana.

Upon review of the company laws and regulations along with the company's act of Guyana, there was no clear or decisive indicator that there was a presence of CSR. The review included the utility of key words used to define CSR (Kindly see appendix A and B for frequency of keywords). A great number of references were made utilizing the a few of the key terminology, however words such as 'stakeholders' or 'employee' were not mentioned in the laws and acts. We note also, that although some keywords were indeed found, they were not used in the CSR context. There were also no mandates requesting that the companies report any form of CSR, in addition to there being no requirements that same be displayed in a public forum, or on an E- platform

As per ISO requirements, companies are required to publish their CSR works, however the requirement to publish using E- forms is abstract. Additionally, different companies are engaging with different forms/levels of standards, as such some MNCs may not be held at the same standard as others. Perusal of the company's law, also did not indicate that there was any form of requirement as it relates to CSR. There is an additional and separate mandate referred to as the Corporate Society's Act. Same was perused, and once again searched for key CSR terminology (Kindly see Appendix B for frequency of terms). Same did not exhibit any form of CSR although key words were matched. Context was not within that of CSR.

CONCLUSION & RECOMMENDATION

It was found that there is perpetually budding presence of CSR in improvement from the year 1966 to the year 2020. There was an increase of this presence as time passed, and there was an evolution, answering the research question as originally posited regarding the improvement of CSR within Guyana. There was also a pervasiveness of CSR affirming the second hypothesis. Growth of CSR though, is limited. There are no explicit corporate laws in place for Guyana's CSR. The first hypothesis was not affirmed. In the case of Guyana, more preference was placed on other types of CSR activities by the populous as opposed to there being a specific focus on climate change. In the final hypothesis regarding CSR best practices, the null hypothesis was confirmed. Emphasis was placed on the voice of the people within the population and what they demand from their corporative as it relates to CSR.

It was found that the most effective methodology for implementation of CSR, was using the OLADE model. Focus should be placed on matters such as climate change, sports and increased assistance and support for the indigenous Community with regard to necessary utilities such as electricity. There should be more stringent governmental CSR reporting policies for corporates. Inclusive of a CSR Reports database, for the ease of transparency and accountability. It should be mandated that organizations explicitly report CSR expenditure in addition to measures policy for CSR non-compliance. Furthermore, entities should be made aware of what CSR is, along with the benefits of having great CSR strategies and practices enacted.

There is a limited amount of information regarding CSR in Guyana. Recommendation is made research should be done on an empirical basis to avoid bias. After implementation of CSR policy, studies should be conducted to measure effectiveness of policy.

REFERENCES

- (Anon.) AFC urges EPA to reconsider waiving of assessment for radioactive materials warehouse, (2022, March 15) Stabroek News. Retrieved from [AFC urges EPA to reconsider waiving of assessment for radioactive materials warehouse - Stabroek News](#)
- Amba-Rao, S. C. (1993). Multinational corporate social responsibility, ethics, interactions and third world governments: An agenda for the 1990s. *Journal of Business Ethics*, 12(7), 553-572.
- Arsenault, C. (2021), Amazon deforestation is rising. Guyana offers a rare bright spot. November 29, Aljazeera.
- Arya, B., & Bassi, B. (2011). Corporate social responsibility and broad-based black economic empowerment legislation in South Africa: Codes of good practice. *Business & Society*, 50(4), 674-695.
- DPI Guyana (2017), BCA Guyana commended for its CSR initiatives <https://dpi.gov.gy/tag/corporate-social-responsibility/>
- DPI Guyana (2021), GPL makes donation to assist autistic children, <https://dpi.gov.gy/tag/corporate-social-responsibility/>
- DPI Guyana (2017), Ministry of Natural Resources launches apprenticeship programme, <https://dpi.gov.gy/tag/corporate-social-responsibility/>
- Economic Growth- Country Rankings (2020), TheGlobalEconomy.com, https://www.theglobaleconomy.com/rankings/Economic_growth/
- Edwards, E. (2014), Guyana CSR model for Implementation of Corporate Social Responsibility in Rural Energy Systems in Isolated Areas in Guyana, OLADE. <https://www.olade.org/wp-content/uploads/2021/03/CSR-Enterprise-v4.pdf>
- Environmental Protection Agency EPA (n.d), Who we are, [Environmental Protection Agency Guyana \(epa.gov.gy\)](https://www.epa.gov.gy/)
- GDP PER CAPITA - GUYANA (2020) , The World Bank, https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=GYc_growth/. Retrieved 4/27/2020. Copyright 2022
- Guyana Fails to Sign on to the EPA Agreement, (2008, October 16. Retrieved from [Guyana Fails to Sign on to the EPA - West Orlando News](#)
- Guyana – Foreign Direct Investment 1960- 2022 (n.d), Macrotrends, Trading Economics, <https://tradingeconomics.com/guyana/rural-population>
- Guyana GY: Rural Population Living in Areas Where Elevation is Below 5 Meters: % of Total Population Data regarding sq km of rural area (2010), CEIC, <https://www.ceicdata.com/en/guyana/land-use-protected-areas-and-national-wealth/gy-rural-population-living-in-areas-where-elevation-is-below-5-meters--of-total-population>
- Guyana Rural Population 1960-2022, (n.d), Macrotrends, <https://www.macrotrends.net/countries/GUY/guyana/rural-population#:~:text=Guyana%20rural%20population%20for%202020,a%200.37%25%20increase%20from%202018.>
- Guyana Rural Population 1960-2022, (n.d), Macrotrends, <https://www.macrotrends.net/countries/GUY/guyana/foreign-direct-investment>
- Holtbriigge D. (2004). How Multinational Corporations Deal with their Socio-political Stakeholders: An Empirical Study in Asia, Europe, and the US. <https://link.springer.com/article/10.1007/s10551-004-9200-9>

REVIEW OF THE CONTEMPORARY MEDIA AND ENTERTAINMENT INDUSTRY'S INNOVATIVE DESIGNS AND APPROACHES

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Abstract

People consume significantly more digital media and leisure than before the epidemic. Consumers reported spending more time viewing online entertainment at home in August 2021, and 69 per cent indicated they intended to expand or maintain their video streaming habit over the next 12 months. Moreover, 71 per cent of respondents stated they would use social media for the same amount of time or longer. Entertainment and media firms have taken notice. They see the possibility, and to meet the growing demand, they are generating ever-increasing amounts of digital material. However, when businesses try to implement new strategies based on consumer data, many realise that simply producing content isn't enough. Consequently, the purpose of this study is to learn more about these new possibilities and challenges, along with recent trends and preferences affecting the M&E sector.

Keywords: Media, Trends, Innovative Designs

Introduction

The media and entertainment sector continued to undergo changes in 2021 as a result of technology advancement, shifting generational attitudes, and the pandemic's cumulative effects. People sought out more media and entertainment at home amid recurrent COVID-19 increases while frequently rejecting more significant in-person gatherings. The interaction with digital media remained high throughout the healthier summer, showing that the epidemic has just hastened earlier shifts toward the digital environment. Future media will increasingly rely on digital innovations for news, entertainment, and commerce, which presents enormous commercial prospects.

To maintain its status as the go-to entertainment option for Indian consumers, television expanded its audience reach and audience engagement in 2020. With more readily available and reasonably priced data and content on digital platforms, the growth in online video consumption quickened. Although at a far slower rate, print media grew as well. Due to excellent results in both home and foreign markets, the film industry broke all prior records for box office revenue. Along with expanding into new locations, radio is expanding its product offerings to include additional services like activations and concerts. Premium properties, sporting events, and digital integration accounted for the majority of the growth in live events.

The more extensive socio-economic processes driving the contemporary era seem to combine with technology on the advent of 2022, intensifying transformation. This encourages more innovation and competition while also placing pressure on company models to adapt to evolving consumer behaviour. In the midst of the chaos that comes with periods of profound upheaval like the one we're in, the media and entertainment sector, which is rooted in the business of imagination, is riding a wave of enormous potential.

Present statistics of M&E industry in India

The Indian media and entertainment (M&E) sector is rising for the economy and is progressing significantly. Indian M&E industry is amid a significant period of expansion, supported by increasing consumer demand and increased advertising income, demonstrating its resistance to the rest of the globe. A FICCI-EY analysis states that the advertising to GDP ratio would increase from 0.38 per cent in 2019 to 0.4 per cent by 2025. The M&E sector in India is projected to rise to a value of \$55–\$70 billion by 2030, according to a BCG study. From Rs. 18,938 crores (US\$ 2.47 billion) in 2021, the Indian digital advertising market is predicted to increase to Rs. 23,673 crore (US\$ 3.09 billion) in 2022. In 2024, print media would make up 13% of the Indian media industry, followed by digital advertising (12%), cinema (9%) and the OTT and gaming sectors. Television would make up 40% of

the market (8%). During the period 2020 to 2023, the market is anticipated to grow at a CAGR of 17%.

The Government of India has designated the audio-visual sector and services as one of the country's champion sectors. The Animation, Visual Effects, Gaming, and comics (AVGC) sector within the M&E industry is expanding at a rate of 29 per cent, while audio-visual products and services are rising at a rate of 25 percent. As per Union Minister of Commerce & Industry, Consumer Affairs, Food & Public Distribution and Textiles, Mr Piyush Goyal, the AVGC industry is expected to increase by 9% to reach Rs. 3 lakh crore (US\$ 43.93 billion) by 2024. BCG projects that by 2022, there will be 90–100 million SVOD subscribers in India, a growth of 51% over 2019 levels.

India's advertising income is anticipated to increase from Rs. 596 billion (US\$ 8.46 billion) in 2020 to Rs. 915 billion (US\$ 12.98 billion) in 2023. From Rs. 631 billion (US\$ 8.95 billion) in 2020, India's subscription income is expected to increase to Rs. 940 billion (US\$ 13.34 billion) in 2023. The increased demand for content among consumers and reasonably priced subscription plans were important development factors. The music business is anticipated to grow by 15% CAGR from Rs 15 billion (US\$ 210 million) in 2020 to Rs 23 billion (US\$ 330 million) in 2023. Gaana, the streaming service owned by Times Internet Ltd., had a 30% market share in 2020, according to a study done by Kantar and VTION, an audience measurement and analytics company. JioSaavn (24%) followed, then Wynk Music (15%), Spotify (15%), Google Play Music (10%), and other services (6%) in that order. The industry is predicted to grow by 2023, reaching 5 million end users and bringing in an income of Rs. 2 billion (US\$ 27 million). This growth is attributed to the tendency of platforms like YouTube, which continue to distribute current and music associated with video content for free. India's OTT video services market (live and on-demand) is anticipated to grow at a CAGR of 29.52 per cent to reach US\$ 5.12 billion by FY26. This growth will be fuelled by customers' growing desire for high-quality content and online platforms' quick expansion.

Review of Literature

Maldonado et al. (2018) examined how the popularity signal intensity affected a market with various items and social influence. Their model includes an exogenous parameter, $r > 0$, that measures the power of the popularity signal. Each product's long-term market share is fully described by the authors, who also demonstrate that the market is entirely foreseeable as long as $r \leq 1$.

Engstrom and Forsell (2018) and Viglia et al. have subsequently looked into the relative weighting of various popularity signals (2014). The first article examines how users pick apps from the Google Play store, while the second investigates how users select hotels. Both tests came to the same result, which is that the popularity signal (i.e., the volume of sales) has a considerably greater influence on customer behaviour than the typical consumer rating signal.

Chen et al. (2019) have just published another work in which they predict the dynamics of consumers who are socially influenced. Our study differs significantly from theirs in that their choice model is based on the MNL model rather than any finite combination of MNLs. Social impact signals are product evaluations rather than purchases.

In addition to **Zhen et al. (2019)**, **Capuano et al. (2017)**, and **Molinero et al. (2015)**, who studied social influence models, **Lutz and Newlands (2018)** and **Anderson and Xie (2014)** who focused on market segmentation of customers are other papers that are related to our work. **Lee and Eun (2020)** uses sales transaction data to estimate the parameters of a Mixed MNL through which we can identify heterogeneous consumer groups.

Objective of the Study

- To study the innovative designs and methods used by the modern media and entertainment industry.
- To understand significant trends in the M&E industry due to the covid pandemic and its aftereffects.
- To analyse the major innovative technological trends that are developing presently.

Methodology

Both qualitative and quantitative methods were used in the study. Secondary data, often known as desk research, is used by the researcher. The accessible information is then organised and summarised to increase the overall effectiveness of the investigation. To do this research, information must be gathered from a variety of sources, including the internet, government documents, libraries, and previously published studies. This research methodology is based on an analysis of the literature and involves acquiring data from a variety of sources, including the internet, government documents, libraries, and other already completed research. Data for the current study was developed from pertinent publications, research articles, newspapers, and websites that offered trustworthy and accurate information.

Major trends in M&E – Pandemic Scenario

Due to the pandemic scenario, consumers actively sought alternatives and had the leisure to try new things, which caused demand patterns in the M&E industry to change. Consumption habits in online news, gaming, and entertainment changed and grew with the development of digital infrastructure. The supply side also changed as businesses seized the chance to reinvent themselves. Every vertical segment has remade itself by being media agnostic and integrating audio, video, textual, and experiential goods to improve their offers. The desire to construct some of India's most prominent brands, however, and the captivating content focused on news and entertainment remained unwavering.

Digital media adoption surged as a result of the expansion of digital infrastructure. Consumption habits in online news, gaming, and entertainment changed and increased as a result. Thus, throughout the pandemic and its initial wave, the major patterns were in the field of print, radio, digital advertising, OTT, the decline in live events, OOH etc.

The decreases in print income were driven by a 24 per cent decline in circulation revenue and a 41 per cent decline in advertising revenue. Radio revenues, which had decreased by 7.5 per cent in 2019, fell by more than 50 per cent again due to reductions in both ad volume and rate as major advertiser groups (regional and retail) were unable to operate their companies at their normal size.

For the fourth year consecutively, the M&E sector's fastest-growing category has been online gaming, which rose by 18% attributed to work-from-home policies, in-home education initiatives, and a boost in online multiplayer game testing during the shutdown.

Digital advertising: Digital advertising maintained its stability, mostly due to increased spending from conventional marketers that accelerated their expenditures in digital sales channels.

28 million Indians (up from 10.5 million in 2019) paid for 53 million OTT subscriptions in 2020, resulting in a 49 per cent increase in digital subscription income. Animation and visual effects 2020 saw a decline in income due to a few months' worth of production stops for television and cinema material. Live events were the most severely impacted of all, the sector saw various attempts to digitalize its services but was only able to regain a small portion of profits through that medium.

In the case of filmed entertainment, while theatrical revenues fell to less than a fifth of their levels in 2019, some of this loss was offset by increasing digital rights income, which nearly quadrupled during 2020 to INR35 billion. The OOH sector suffered from less travel and time spent outside the house due to the lockdown. Due to heavily lowered ad prices during the lockdown months, television's largest category witnessed a 22 percent decline in advertising income, even if ad volumes only fell by 3 percent. The digitalization of music continued in 2020, with audio streaming revenues increasing by 15%, while overall music section revenues remained unchanged due to a decline in performance rights of more than 65%.

Recent developments and innovations in M&E sector

As per various reports, 2022 trends in M&E sector the following are the recent trends in this area:

1. D2C Video streaming

Direct-to-consumer marketing, or D2C in short, denotes a company's direct marketing and sales of products and/or services to its customers. Regaining control over the manufacturer's marketing and sales initiatives is possible. In terms of upcoming developments in the media and entertainment sector, this is how D2C video streaming functions.

Considering Disney as a famous illustration for D2C, as soon as this corporation decided to remove material from Netflix and make it available via a D2C channel via one of its vital business ventures, Disney+, it became a pioneer in the D2C video streaming industry. Leading media companies then started to pull back their material and slam third-party applications hard.

2. Esports broadcasting trends

The worldwide COVID-19 outbreak stops spectators from attending their favourite games in person. The problem, nevertheless, is gone now. eSports, one of the most recent revolutions in digital media, offers a solution; by 2021–2022, industry revenues were expected to exceed \$1 billion. Media rights and sponsorships bring in the largest portion of the revenue.

Legalized sports betting represents another exciting sector. It will likely benefit financially from the upcoming 5G technology.

3. Augmented and Virtual Reality

Virtual and augmented reality material has wholly taken over the media and entertainment industries. Both of these improve connections between content producers and viewers. Today's consumers are thrust into a world where the lines between the physical and digital worlds are more blurred. Due to the cost ramp-down, these two technologies have been accessible for years. Celebrities and artists are aware of how crucial it is for their careers to stay in contact with their followers.

Pokémon Go is a prime example of how these two trends may coexist. Popular social networks believe that whether live streaming or narrative-based films, augmented reality and virtual reality provide affordability and mobility. Experience is improved more than ever by the development of AR and VR entertainment software. It must be optimised to make VR and AR material usable on various platforms.

4. AI

Predicting user involvement with information can be done with similar success using artificial intelligence, machine learning, and natural language processing. Unstructured user digital data is widely available in M&E firms. In order to mine and fill this digital data, artificial intelligence has added a human-like component. Artificial intelligence (AI) is efficient in swiftly estimating and retrieving emotional changes, information that is required to better understand consumer behaviour and trends in digital media consumption.

5. Gaming, Block Chain

According to recent research, most in-person entertainment occasions fall under the category of live in-game concerts, which are preferred by 40 per cent of users above other in-game activities like virtual simulations of social life or movie trailers. One of the newest digital media developments that have the potential to grow the gaming industry is that. Nvidia GeForce Now, PlayStation Now, and Google Stadia are a few examples of systems that stream video games. Innovations in AI technology help to categorise digital data according to shared characteristics. A business may better forecast user engagement and increase its revenue prospects in this way. When deciding on suggestions for new music that listeners afterwards fall in love with, for instance, Spotify uses several AI techniques.

6. Music streaming services

There are several services and applications available for streaming live music. Large music catalogues are freely accessible through these services, which include Spotify, Amazon, and Apple Music. The practice of downloading music directly to a desired device or streaming it via a web or mobile network is becoming more and more popular. A predetermined monthly subscription cost is needed for the majority of these services.

7. Content Personalization

User recommendations should be presented in a simple, intuitive interface. Gaining and maintaining customers' trust is difficult for firms, and doing so requires convincing them to seek out fair information. However, their preferences may shift with time.

Because of this, recommendation engines ought to make an effort to promote the discovery of fresh material, enhancing users' cultural experiences. For instance, those seeking instructional videos on demand can be drawn to a variety of educational topics, including physics, history, or literature. Gamification, interactive tests, surveys, GPS-based map apps, retargeted advertisements on social media platforms, and tailored emails are a few examples of personalised content.

8. OTT Content Advertising

Over-the-top is the next development in television advertising attributable to the explosive growth of on-demand streaming services. It is one of the main trends in video content.

This is so that viewers of OTT material, as opposed to those who prefer linear television, are not interrupted by commercial breaks every 10-15 minutes while watching their favourite series and movies. They are less agitated in this manner. Consumers may enjoy a quality watching experience with this, which is still among the most excellent aspects of services like Amazon Prime. One of the first multimedia platforms to implement this kind of monetization was YouTube. For instance, Netflix recovered in 2021, growing its subscription base by 4.4 million throughout the globe. With 73.8 million customers worldwide, HBO Max is another well-known example of a video-sharing app.

Conclusion

Market Watch Report projects that the entertainment and media business will reach around \$6709.4 billion by 2030, with a CAGR of 10.40 percent. In the United States, this industry dominates and is very well-liked.

The media and entertainment market in the US accounts for 717 billion dollars, or one-third of the worldwide M&E market. This category includes radio, books, games, advertisements, TV shows, movies, music, and associated products and services. Despite the effects of COVID-19, this industry is generally displaying a quick return to development. The media and entertainment industry's tendencies are so evolving. Other data illustrates the transition to tailored experiences in a sector that is changing quickly. For example, according to FIFA, 1.12 billion people watched the France vs. Croatia World Cup match in 2018. But nowadays, one of the most popular patterns in digital media consumption is for users to create their own media menus and consume media at their own leisure.

There is a noticeable increase in the number of persons using headphones, which are like hermetically sealed bubbles. No matter if they are using a mobile phone or tablet, they may easily access any material. As a result, it also encourages an increase in mobile video consumption patterns.

Bibliography

Chris K Anderson and Xiaoqing Xie. Pricing and market segmentation using opaque selling mechanisms. *European Journal of Operational Research*, 233:263–272, 2014.

Christoph Lutz and Gemma Newlands. Consumer segmentation within the sharing economy: The case of Airbnb. *Journal of Business Research*, 88:187–196, 2018.

Felipe Maldonado, Pascal Van Hentenryck, Gerardo Berbeglia, and Franco Berbeglia. Popularity signals in trial-offer markets with social influence and position bias. *European Journal of Operational Research*, 266:775–793, 2018.

Haengju Lee and Yongsoo Eun. Discovering heterogeneous consumer groups from sales transaction data. *European Journal of Operational Research*, 280:338–350, 2020

Ningyuan Chen, Anran Li, and Kalyan Talluri. Reviews and self-selection bias with operational implications. Available at SSRN: <https://ssrn.com/abstract=3407477> or <http://dx.doi.org/10.2139/ssrn.3407477>, 2019.

Per Engström and Eskil Forsell. Demand effects of consumers' stated and revealed preferences. *Journal of Economic Behavior & Organization*, 150:43–61, 2018.

Xavier Molinero, Fabián Riquelme, and Maria Serna. Cooperation through social influence. *European Journal of Operational Research*, 242:960–974, 2015.

Xueping Zhen, Gangshu George Cai, Reo Song, and Sungha Jang. The effects of herding and word of mouth in a two-period advertising signaling model. *European Journal of Operational Research*, 275:361–373, 2019.

"Media and Entertainment Industry in India, Indian Media Industry." *India Brand Equity Foundation*, www.ibef.org, 1 Apr. 2022, <https://www.ibef.org/industry/media-entertainment-india>.

"2022 Media & Entertainment Industry Outlook | Deloitte US." *Deloitte United States*, www2.deloitte.com, 26 Feb. 2019, <https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/media-and-entertainment-industry-outlook-trends.html>.

"How Are Media and Entertainment Businesses Reinventing in an Age of Transformation? | EY - Global." *How Are Media and Entertainment Businesses Reinventing in an Age of*

Transformation? | *EY - Global*, www.ey.com, 24 June 2022, https://www.ey.com/en_gl/tmt/how-the-media-and-entertainment-enterprise-is-evolving.

“Digital Trends Transforming Entertainment App Development In 2022.” *Sparx IT Solutions*, www.sparxitsolutions.com, 28 May 2021, <https://www.sparxitsolutions.com/blog/impact-of-technology-on-entertainment-and-media-industry/>.

“Changing Trends In Media And Entertainment Industry In India - Broadcasting: Film, TV & Radio - India.” *Changing Trends In Media And Entertainment Industry In India - Broadcasting: Film, TV & Radio - India*, www.mondaq.com, 3 Oct. 2016, <https://www.mondaq.com/india/broadcasting-film-tv-radio/532458/changing-trends-in-media-and-entertainment-industry-in-india>.

AMELIORATION OF SKILLS AMONG WEAVERS IN HANDLOOM INDUSTRY- AN EVALUATIVE STUDY

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Abstract: India is the largest contributor of the handloom fabrics in the world and 31.45 lakh households engaged in handloom weaving and allied activities. Handloom sector is a traditional sector and potential to provide employment opportunity to rural population after agricultural sector. The strength of this sector are regional focus and specialization, tradition based products, labour intensive units, minimal usage of power and capital, environment - friendly production, innovation and skill oriented and adaptability to market requirements. As per Fourth All India Handloom Census 2019-2020, around 23 lakhs (70 percent of total weavers) weavers engaged in handloom sector is women and therefore this sector represents women empowerment and financial independence of women in our nation. Government has implemented various supportive programmes for the promotion and revitalisation of handloom sector. However, the industry is now facing challenges with declining number of weavers and lack of attraction to next generation weavers. Skill upgradation programmes are essential in this context, weavers and allied workers compelled to learn about innovative production techniques, technological changes, design and process development, general management practices and online opportunities for marketing products etc. The present study attempts to analyse whether the Government schemes initiated in handloom sector really serve the beneficiaries and examine the attitude of weavers towards the schemes.

Key Words : Government Schemes, Skill upgradation, Work performance, Weavers, Handloom Industry.

Introduction

The Indian textile industry is one of the largest in the world with its contribution to a large unmatched raw material base and manufacturing strength across the value chain. India is the 6th largest exporter of Textiles & Apparel in the world. India's textiles and clothing industry is one of the mainstays of the national economy. The share of textile and apparel in India's total exports stands at a significant 11.8% in 2019-20. India has a share of 5% of the global trade in textiles and apparel. The uniqueness of the industry shows in its strength both in the hand-woven sector as well as in the capital intensive mode. Traditional sectors like handloom, handicrafts and small scale power-loom units are the biggest source of employment for millions of people in rural and semi urban area.

Being a traditional sector handloom industry has a predominant role in enhancing cultural value and tradition of nation. It provides direct employment of over 45 million people and source of livelihood for over 100 million people indirectly, including a large number of women and rural population. This sector contributes nearly 15% of the cloth production domestically and contributes to the export earnings of the country. 95% of the world's hand woven fabric comes from India. All India Handloom Census 2019-20 depicts that central Government and state governments implementing different kinds of schemes to ensure betterment, promotion, development and welfare of handloom weavers.

The ministry of Textiles through Directorate of handloom and textiles extends support to handloom industry in India for the sustainable development of handloom units and weavers. Major Government schemes are cluster development, market assistance, yarn supply, export promotion, skill upgradation, employee welfare schemes etc.

Asper Background note of Ministry of Textiles, Government of India an amount of Rs. 544.50 crores were allocated during 2017-2018 to implement Government schemes in Handloom sector. In 2018-2019, amount allocated was reduced to 396.09, and in 2021-2022 Government allocation to this sector was increased enormously with an amount of Rupees 481.82 crores to uplift handloom industry. Total fund allocation from 2017-2018 to 2021-22 were depicted in Table no.1

Table No.1

Financial releases toward handloom schemes during 2017-18 to 2021-22

Year	Total allotted fund(Rs.in crores)
2017-18	544.50
2018-19	396.09
2019-20	456.80
2020-21	475
2021-22	481.82

Source:- Ministry of Textiles, Government of India

In Kerala, an amount of Rs. 150 lakhs were allocated in budget 2021-22 for training and skill upgradation programme. The purpose of the present scheme was to improve productivity and capacity building among staff and workers in handloom co-operatives. Rs. 20 lakhs provided to conduct evaluation/ impact studies, orientation training to departmental personnel, preparation of project proposals, IT hardware and software infrastructure, and conducting seminars and workshops. Rs. 32 lakhs proposed to total e-governance solutions, Rs.15 lakhs for engaging professional designers, Rs.55 lakhs assigned to conduct intensive training targets 400 people and 75% of beneficiaries will be women. Rs.28 lakhs provided as stipend to 3 year textile technology students at IIHT.

The present study attempts to analyse the influence of skill upgradation programme on weavers performance and productivity. Skill development, work performance, Personal advancement and Technology upgradation are the major variables considered to judge the effectiveness of skill upgradation programme.

Research questions

1. Whether the handloom weavers improve their work performance with skill upgradation programme initiated by the Government?
2. Whether Handloom weavers able to acquire skills to design innovate products and patterns?

Objectives of the Study

1. To study the prospectsof handloom weaving in the present scenario.
2. To assess the effectiveness of skill upgradation programme among handloomweavers.

Methodology of study

The present study aims to draw inference on effectiveness of skill upgradation programme conducted by Governmental agencies to upgrade handloom weavers. The study was descriptive and empirical in nature. The data for the study were collected from both primary and secondary sources. Convenience sampling method was applied to collect Primary data. The population of study was weavers who are working in handloom co-operative units registered under Directorate of Handloom and Textiles, Kerala. Approximately 9959 approved handloom weavers represents Trivandrum District and data collected from 100 handloom weavers conveniently through interview schedule. Percentage analysis, and Chi-square test were adopted to analyse the association of different variables.

Hypothesis of the study

H₀1:-There is no association between year of experience and creation of new designs.

H₀2- There is no association between Year of experience and acquiring modern weaving skills

H₀3-There is no association betweenYear of experienceand identification of market prospects

H₀4-There is no association between Year of experience and identification of customer needs.

H₀5- There is no association between Year of experience and Increase in productivity

H₀6- There is no association between Year of experience and Quality enhancement

H₀7- There is no association between Year of experience and Simplify production process

H₀8- There is no association between Year of experience and Production of value added products

H₀9- There is no association between Year of experience and Increased earnings

H₀10- There is no association between Year of experience and Improved quality of worklife

H₀11- There is no association between Year of experience and Improvement in morale

H₀12- There is no association between Year of experience and Work Satisfaction

H₀13- There is no association between Year of experience and Access to technology

H₀14- There is no association between Year of experience and Improvement in production process

H₀15 -There is no association between Year of experience and Assimilation of computer assisted weaving process.

H₀16- There is no association between Year of experience andIntroduction of eco-friendly production process.

Results and discussion:-

Demographic Profile of Weavers:-

The present study conducted to analyse the effectiveness of skill upgradation programme implemented for the well being of handloom weavers. Age, gender,educational qualification, place of residence, income and year of experience were considered to study demographic profile of handloom weavers of Trivandrum District.

Table No.2

Demographic profile of weavers (N=100)

Particulars		Number of Weavers	Percentage
Age Group	Less than 25	6	6
	25-40	24	24
	40-45	66	66
	Above 55	4	4
Gender	Male	36	36
	Female	64	64
Educational Qualifications	Illiterate	4	4
	Matriculate	38	38
	Under Graduate	47	47

	Graduate	10	10
	Others	1	1
Place of Residence	Urban	6	6
	Semi Urban	22	22
	Rural	72	72
Income	Less than 10000	50	50
	10000-20000	40	40
	20000-30000	8	8
	30000 and above	2	2
Year of experience	Below 5 years	3	3
	5-10	11	11
	10-15	43	43
	15-20	22	22
	More than 20 Years	21	21

Source: Primary Data

Table No. 2 depicts the demographic profile of 100 respondents. Most of the respondents belong to the age group of 40-45. Women weavers are more and 47 percent of the respondents were undergraduate. Weavers working under co-operative societies mainly from rural area and majority of weavers are having 10-15 years of experience. More than 50 percent of respondents earns Rs.10000-20000 as their monthly income.

Table No.3

Chi- Square Test result toward variables on Effectiveness of Skill Upgradation Programme

Variable	Chi-Square Value	Acceptance/Rejection of H ₀
Create new designs	0.330	H ₀ accepted
Acquire modern weaving skills	0.000	H ₀ Rejected
identify market prospects	0.000	H ₀ Rejected
identify customer's taste and preference	0.584	H ₀ accepted
Increase productivity	0.237	H ₀ accepted
Quality enhancement	0.004	H ₀ Rejected
Simplify production process	0.071	H ₀ accepted
Produce value added products	0.000	H ₀ Rejected
Increased earnings	0.015	H ₀ Rejected
Improved quality of worklife	0.014	H ₀ Rejected
Improve morale	0.000	H ₀ Rejected
Work Satisfaction	0.046	H ₀ Rejected
Access to technology	0.017	H ₀ Rejected
Improvement in production	0.000	H ₀ Rejected

process		
Assimilation of computer assisted weaving process	0.510	H ₀ accepted
Introduction of eco-friendly production process	0.033	H ₀ Rejected

Source: Primary Data

Table No.3 revealed that there is considerable association exists between year of service of weavers and effectiveness of skill upgradation programme .The variables such as create new designs, identify customer's taste and preference, increase in productivity, simplify production process and assimilation of computer assisted weaving process shows p value less than 0.05 and these variables are not at all associated with the year of experience of weavers in handloom co-operatives. There is strong association with the variables like acquiring modern weaving skills, identify market prospects, quality enhancement, production of value added products, improvement in morale of workers, improvement in production process etc. with the year of service of weavers.

Conclusion

Handloom sector plays a major role in the economic development of the nation as It is a low energy sector with no adverse impact on the environment. The success of handloom sector lies in the introduction of innovative designs and enhancement of weaving skills. Skill upgradation programme was introduced by Government in order to enrich weaving skills and capability of handloom weavers and make them fit for producing diversified products to withstand competition in the present market scenario and compete with technological advancements. However weavers are not fully acquainted with the creation of new designs, cope up with market challenges and computer assisted production process. These limitations will definitely affect productivity and overall work satisfaction of weavers. Hence, Government must initiate steps to provide more training programs to weavers in order to enhance their potential to address the ill-effects prevailing in the handloom sector.

References:

- Rao K .Ramamohana and Kiran kumar Kakumanu(2018) , Weavers attitude on implementation of integrated handloom cluster development scheme (IHCDC): An empirical study, *International journal of trend in scientific research and development* Volume 2, issue-2, p.p -1480-1489.
- R Srinivasa and Sreedhar N (2017), socio economic conditions of handloom weavers in Gannavaram Mandal of Krishna District in Andra Pradesh, *Journal of humanities and social science (IOSR-JHSS)*, Volume 22, issue 9, ver.11, pp-42-49.
- Bhattacharya Rajesh and Sen Sarmishtha (2018) state of working India, Background paper - 16, pride and prejudice: The condition of handloom weavers in West Bengal. *Centre for sustainable employment, Azim Premji university, Bengaluru.* pp-1-30.
- Pargai, Deepti an Jahan Shahanaz, (2016) Revival of handloom industry- need of the hour. *International journal of textile and fashion technology(IJTFT), Trans stellar journal publicationsm Research consultancy,* volume 6, issue 2, PP-9 to 16
- Kaushik Nikhil and Madhur Raj Jain(2015) Impact of government schemes on handloom weavers at Maheswar, M.P, *International Journal of Management studies* 2(1), 2231-2528
- Niranjana, S., (2001). Appraising the Indian handloom industry. *Economic and Political Weekly*, Vol. 36, No. 45, 4248-4250.
- Ministry of Textiles, Annual Report 2020-21, Government of India.
- Ministry of Textile, Handloom Census of India 2019-2020, Government of India.

THE IMPACT OF GREEN PRACTICES AND COMPETITIVE ADVANTAGE FOR THE HOTEL INDUSTRY

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Abstract

Global warming is increasing with an alarming rate throughout the globe, hence, businesses are recommended to take measures to protect the environment from the detrimental effects of their operations on the environment, such as excessive resource consumption and waste production. However, environmental issues are often neglected when people are doing well for profitability. Environmental regulations and social pressures may lead organisations to enhance their environmentally friendly efforts. With the increasing carbon footprints, resource wastage and environmental degrading practices, several environment managements acts have been enacted by the nations in order to reduce their harmful impacts. In response to this, the hotel industry has to comply with those strategies and policies, which lead the path of eco-friendly practices. This study aims to identify the knowledge, skills, and abilities necessary to implement proactive environmental methods and processes, as well as the potential benefits of doing so. The study focuses on hotels in India, where environmental concerns threaten the industry's survival. The study utilised data collected from various secondary resources. The findings lend weight to the premise that adopting proactive actions to protect the environment may boost long-term growth and profitability. It also highlights how a green strategy makes an organisation more ecologically friendly and competitive. Green initiatives increase cost competitiveness and differentiation by directly boosting environmental performance in terms of utility consumption, waste management, and environmental risk management.

Keywords: Hotels, Green practices, Green Initiatives, Competitive advantage, Tourism Sector, Hospitalit

Introduction

An eco-hotel, also known as a green hotel, values the environment and has undertaken significant structural changes to decrease the impact it has on the surrounding area (Kostić, et al. 2019). An environmentally friendly hospitality organisation is one that respects the environment and practises sustainable living. They must be certified as environmentally friendly by a third-party organisation or the state in which it is located. These were once known as "ecolodges" since they were sometimes located in rainforests and their designs were influenced by the way talented indigenous architects employed traditional building techniques.

Non-toxic cleaning procedures, the utilisation of renewable energy sources, organic soaps, energy-efficient lighting, and recycling operations are among the enhancements. In order to be ecologically sustainable, these hotels should get appropriate certifications. The LEED accreditation is beneficial to hotels and was designed with their requirements in mind. A LEED-certified hotel contributes to the environment by using less energy than other hotels. An eco-hotel should adhere to a set of best practises in order to protect the environment. In this, proactive environmental strategy is a technique for a corporation to decrease the environmental effect of its activities that goes beyond what is required by law and what is regarded to be good business practise. These best practises include, among other things, instituting recycling and composting programmes in rooms, serving local organic cuisine in restaurants, and reusing linens when a guest stays for many nights. The availability of these credentials, as well as adherence to certain best practises, may persuade eco-conscious travellers to pick these hotels. So, addressing all this concept of green hotels and initiatives for the competitive advantages, is presented in this paper.

Literature Review

Mishra & Yadav (2021) research found that, the rising emissions of emerging nations demonstrate their concern for environmental concerns. Since the 1990s, the economies of emerging nations like China and India have grown substantially. The purpose of this study is to examine the relationships between competitive advantage, particular environmental capabilities, and Proactive Environmental Strategy (PES) using natural resource theories. In the sphere of corporate environmentalism, the natural resource-based viewpoint has provided useful strategic concepts. The research examined the intricate connections between PES, environmental capacities, and competitive advantage. This was accomplished utilising information from 162 prominent Indian enterprises. The results of the study refuted the most prevalent notion in the literature by demonstrating that Indian corporations are strategic thinkers about environmental concerns.

According to Zhao et al. (2020), the environmental reputation of a corporation is based on their perception of the company's past and likely future environmental performance in comparison to other companies in the same industry. This research seeks to examine how proactive environmental strategy and environmental reputation relate to GHRM. Authors investigate how proactive environmental policies have direct effects on GHRM. They also believe that a company's GHRM has a favourable influence on its environmental reputation. GHRM demonstrates the company's commitment to HRM in environmental management. It also assists the firm in implementing its environmental plan and enhancing its environmental reputation.

According to the literature on environmental sustainability, there are environmental challenges all over the world that need to be addressed right now, according to Adomako et al. (2021). As a result, more people are aware of how business operations and activities affect the environment. According to an exciting collection of sustainability literature, a rising number of businesses with sustainability initiatives has been observed. The purpose of this study was to see how imitation orientation influenced the link between PES and how well a firm performed. When a company's culture and strategy are centred on replicating its competitors' marketing and strategic manoeuvres, this is referred to as imitation orientation. The data for this study was contributed by the CEOs and financial directors of Ghanaian small and medium-sized firms (SMEs). The original survey had 311 responses.

According to Norcia et al. (1993), an evaluation of the recycled paper industry in Canada comprised the development, specification, and use of an environmental performance model. As a result of the rising number of laws, the industry is evaluating its strategic position in an effort to enhance its environmental performance and obtain a competitive edge. The Canadian pulp and paper business has three policy options: preserving the status quo, upgrading process technology, and developing new products. Assess the strategic position of an industry by analysing its posture, attitude, government reaction, values, planning horizon, and relationship with the environment. In the research, 32 semi-structured interviews and 71 annual reports are evaluated. Using the legitimacy theory, the study sheds light on how corporations see stakeholder accountability in relation to climate change. One may establish a connection between competitive advantage and environmental performance by analysing the interconnections between suppliers and customers, capital and technology, and geographic considerations.

In the hotel business, proactive environmental initiatives are executed to help Eco-Hotel activities, Green Core Competencies, and Green Competitive Advantages (Kostić, et al. 2019). With the help of effective 366 responses, the association between Proactive Environmental Strategies and Eco-Hotel ovation, as well as their associations were selected. With the help of effective and potential data collection process, the discoveries demonstrate that proactive environmental strategies emphatically affect Eco-Hotel ovation, which straightforwardly affects Green Core Competence. Information were gathered in high-contaminating ventures, in light of the fact that these organizations work in additional earth delicate areas and may deal with additional ecological issues. It is also finding out that a rising number of organizations are including proactive natural technique (PES) into their general business arranging.

Proactive environmental strategies (PES) and the natural-resource-based view

Due to the fact that these firms operate in sectors that are more damaging to the environment and may generate more environmental issues, data was gathered for the industries with high levels of pollution (mostly SME businesses) (Mishra & Yadav, 2021). The chemical, metal, and biomedical sectors are among these. Businesses are urged to invest in Proactive environmental strategies practises in order to expand in a green, competitive, and sustainable manner with an effective resource-based view. Further, managers should also maximise their available resources and companies should provide particular financial and non-financial assistance to create exams and green criteria, as well as scientific training techniques and training reimbursement, in order to identify and cultivate environmentally conscious individuals (Adomako, et al. 2021). In addition to this, businesses must be prepared to incur the price of turning green if they wish to thrill their employees and enhance their environmental reputation. Additionally, managers are obligated to put the additional time to "green use," which not only helps them set a good example for the environment but also safeguards the investment in Proactive environmental strategies.

Critical capabilities for the implementation of PES

Over the last two decades, the business has focused heavily on humans' detrimental effects on the environment. First, contrary to previous studies that focused on linear correlations between PES and performance, PES has a more significant influence on non-BOP (Blow Out Preventers) organisation performance than on BOP firms. The findings that PES is related to improved but not in imitation-free organisations helps us understand how imitation orientation alters the connection between PES and performance (Abbott et al. 2019). Strategic resources determine a company's competitive edge, according to the firm's resource-based approach. According to the RBV's fundamental premise, a company's scarce, unique, and irreplaceable resources may provide it a competitive edge (Zhang, et al. 2019). Strategic skills acquired through PES, on the other hand, may give the organisation with a greater competitive advantage since they are rare, valuable, and incomparable with anything else.

Environmental performance and competitive advantage

Organisations should embrace and employ environmental ethics to ensure that the requirements of the enterprise, society, and earth are all met. This is significant because stakeholders are increasing pressure on businesses to use sustainable environmental management practises (Singh et al. 2019). It has been indicated that environmental ethics influences a company's competitive advantage, environmental performance, and environmental training. Environmental training for employees is a crucial relationship between environmental ethics, environmental performance, and a company's competitive edge. Hence, organisations should embrace ethical standards for the workplace environment proactively rather than reactively. The objective is to establish and sustain harmony among profits, society, and the environment. If the firm wishes to win contests and enhance its environmental performance, environmental training should not be a one-time event. Instead, it should be something that occurs regularly.

PES positively influences organizational competitive advantage

The hotel industry is being led by stronger environmental rules and environmentally conscious clientele. To become more imaginative while meeting expanding environmental standards and green competitiveness goals, businesses must either assess existing technology or develop new technologies. The Eco-Innovation enhances a hotel's reputation in terms of customer satisfaction and return visits (Kuo et al. 2022).

To identify the organisational abilities that enable the deployment of a proactive environmental approach and the advantages that may result from doing so. The developing nations that rely heavily on the tourist sector yet are at risk from environmental issues (Singjai et al. 2018). Individuals that are creative, open to learning, and skilled at managing quality are more likely to accept pro-active environmental solutions. It has been demonstrated that the green strategy has a favourable impact in improving environment performance and the competitive advantage of the organisation. By differentiating itself, the business becomes more cost-competitive and gains a competitive advantage.

Energy Conservation Measures

Recently, it has been seen that all institutions are being instructed by to save energy in whatever manner possible. This is due to the fact that public, private, and foreign institutions now prioritise paying their monthly consumption fees. For instance, Universities in Malaysia waste a lot of energy, which forces them to spend a lot for electricity each year and strains their budgets (Wen, 2018). In certain regions of the world, the energy consumption of educational institutions is comparable to that of medium-sized cities. The environment is helped by mindfulness programmes that are taught at universities all around the world, including Malaysia, and that assess students' energy-saving behaviour. One of the major consumers of power in the state of Sarawak which is a Malaysian State has been discovered to be a significant provider of educational services. Therefore, a thorough energy audit was required to determine if energy was being squandered or was being used affordably and efficiently. Based on an evaluation of the university campus overall load profile, this study makes energy-saving recommendations. Safety Warning Triangles have the potential to become a superior source of ecologically benign energy for the majority of developing nations and distant areas in a number of developed nations.

Energy conservation was divided into three areas (Kempton et al. 2019): improving management, making investments in energy efficiency, and sacrificing amenities or comfort. As a result of how people feel about it, conserving energy is viewed as a "sacrifice." This causes consumers to put too much emphasis on monitoring and reducing their energy use rather than improving its efficiency (Majumdar, 2021). Every energy-saving measure has a cost to the household, such as time, money, or a sacrifice. In addition to the data available, evidence from diverse hotels in India indicates that consumers have reduced their spending and investments more than would be predicted economically (Tiwari, et al.2020). Its consequences on people's decisions to utilise energy have nothing to do with money. The amount of energy expenses that may be ascribed to various end users was estimated by consumers. Germans overestimate the amount of energy they use for lighting, appliances, and cooking but underestimate the amount required for heating.

Water Conservation Measures

Regarding the water conservation measures, the goal is to find out what motivates people to conserve water, what keeps them conserving water, and what makes people aware of and comfortable with water conservation behaviours (Moglia et al. 2018). To establish where the best practises for managing water conservation are heading, which, in opinion, is toward customising water conservation programmes through the use of the most current developments in behavioural science and smart metres. Whether to save money or because it is the right thing to do, the hotel industry in India is beginning to recognise the need of environmental, social, and human capital protection for long-term financial health (Verma & Chandra, 2018). More longitudinal research on how people save water, a stronger emphasis on behavioural science, and the development of modelling tools that utilise the results and lessons from this research to aid individuals in making decisions are all needed to help people conserve water in their own ways. This can help to improve the capacity to undertake water conservation programmes more successfully in response to water shortage events such as droughts. This is because long-term decreases in per capita water demand can help accomplish strategic water planning goals.

Tourism is known for its high-water use, and as the business flourishes, so does the demand for water. Hotels are the most water-intensive sector in the tourism industry (Mendoza, et al. 2022). Effective hotels should educate, empower, and actively include their visitors in their environmental initiatives in order to increase efficient water consumption. Hotels, particularly green hotels, are excellent sites to increase environmental awareness and motivate people to take action (Gabarda-Mallorquí, et al. 2018).

This is intended to aid the nations in making informed decisions on the extension of the current development of new implementation strategies for hotels. So, in terms of hospitality industry, the situation required development organisations (such as the hotels, government, NGOs, and projects) to devise solutions. In regions of the countries where residents have used to prevent environment, the policies have shown to be effective and advantageous.

Waste Management Measures

African countries are harmed by both their own e-waste production and the widespread dumping of obsolete electronics and electrical devices in profitable but illegal international trade flows. This has made African countries aware of the risks connected with the processing and disposal of e-waste, including the effects on human health and the environment (Hijazi et al. 2021). Generally, it can be seen that having effective waste management practices can help in reducing the heavy costs to the businesses. Businesses can sell their organic waste to other companies and earn some extra profits, similarly they can create their own power from that waste and reduce some extra costs (Singjai, et al.2018). These waste management measures can somehow provide an extra edge and competitive advantage to the hotels. Despite the fact that trading in electronic waste is illegal, international organisations have done little to protect African states. Country-specific strategy that uses domestic measures while taking into account international rules was also recommended. An effective plan for managing e-waste, which included recycling and steps related to extended producer responsibility (EPR) can be developed. This was done to find out if there was a link between e-waste and carbon emissions and what effects this link had on the environment and how the countries responded to international agreements like the Basel Convention and the Kyoto Protocol.

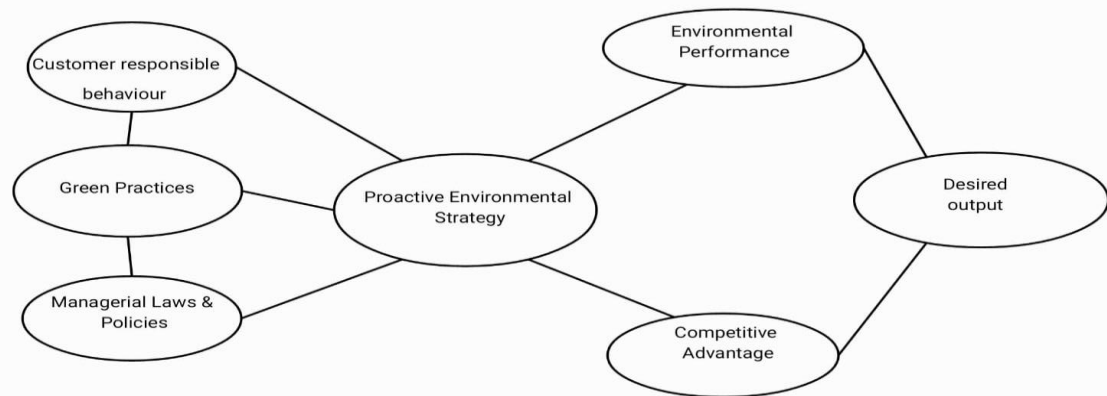


Figure 1: PES model

Source: Author

Moreover, Waste production in schools reveals both staff and student contributions and habits that could be improved through educational activities and so can be utilised too in the hotel industry. Since teaching good behaviour to students has a favourable influence on how their families behave, it is crucial to educate employees about the significance of environmental concerns (Rada et al. 2016).

Promote training and teaching to assist employees learn more about garbage management and alter their behaviour. In actuality, scientific study lacks a method to examine waste management and sustainable practises in schools from both a quantitative and qualitative perspective. The measurements revealed that the quantity of waste produced is influenced not only by the number of customers and staff members, but also by the sorts of extra activities and the behaviours of the individuals at hotels.

Inspection of a government reaction, values, industry's posture, attitude, arranging skyline, and connection with the climate to survey its essential position within the market is required by hotels. The competitive advantage and environmental performance is breaking down the communications among providers and clients, capital and technology, as well as locational aspects.

The discoveries will work up interest to unwind the human side of ecological administration and that will doubtlessly guide future explores in hotel industry. The outcomes are recommended that ecological morals impact natural preparation, environmental performance and competitive advantage.

Findings and Conclusion

It is highlighted that the study purposes to distinguish the information, abilities, and capacities important to carry out proactive environmental methods techniques and cycles, as well as the possible advantages of doing green practices in hotels. The overall review centres around hotel industry in India, where environmental concerns threaten are undermined the business' endurance in spite of India's dependence on the travel industry. It also being open to innovative data, being inventive, and saving quality all decidedly influence the utilization of proactive environmental strategies and techniques. The analysis has used information gathered from secondary sources. The discoveries weight to the reason that implementation of proactive activities to safeguard the environment might support long haul in development and productivity of hotels. It is also highlighted that the features of how a green system makes an organization more environmentally friendly and competitive. Green drives inflate cost competitiveness and differentiation by openly serving environment execution with regards to utilization; leftover executions, and ecological risk management in hotels.

References

- Abbott, A. S., Turney, J. M., Zhang, B., Smith, D. G., Altarawy, D., & Schaefer III, H. F. (2019). Pse-learn: An open-source software package for the automated generation of machine learning models of molecular potential energy surfaces. *Journal of chemical theory and computation*, 15(8), 4386-4398.
- Adomako, S., Ning, E., & Adu Ameyaw, E. (2021). Proactive environmental strategy and firm performance at the bottom of the pyramid. *Business Strategy and the Environment*, 30(1), 422-431.
- Tiwari, S., Dambhare, A., & Tripathi, R. (2020). Eco-friendly practices in star category hotels of Lucknow: An exploratory study. *AVAHAN: A Journal on Hospitality and Tourism*, 8(1), 9-16.
- Majumdar, R. (2021). Surviving and growing in the post-Covid world: the case of Indian hotels. *Worldwide Hospitality and Tourism Themes*.
- Verma, V. K., & Chandra, B. (2018). Intention to implement green hotel practices: evidence from Indian hotel industry. *International Journal of Management Practice*, 11(1), 24-41.
- Singjai, K., Winata, L., & Kummer, T. F. (2018). Green initiatives and their competitive advantage for the hotel industry in developing countries. *International Journal of Hospitality Management*, 75, 131-143.
- Hijazi, O., Okyere, A., & Bernhardt, H. (2021). Environmental impacts of E-Waste recycling in Africa. In *2021 ASABE Annual International Virtual Meeting* (p. 1). American Society of Agricultural and Biological Engineers.
- Kempton, W., Harris, C. K., Keith, J. G., & Weihl, J. S. (2019). Do consumers know "what works" in energy conservation?. In *Families and the energy transition* (pp. 115-131). Routledge.
- Kostić, M., Ratković, M., & Forlani, F. (2019). Eco-hotels as an example of environmental responsibility and innovation in savings in the hotel industry. *Menadžment u hotelijerstvuiturizmu*, 7(2), 47-56.
- Kuo, F. I., Fang, W. T., & LePage, B. A. (2022). Proactive environmental strategies in the hotel industry: eco-innovation, green competitive advantage, and green core competence. *Journal of Sustainable Tourism*, 30(6), 1240-1261.
- Mishra, P., & Yadav, M. (2021). Environmental capabilities, proactive environmental strategy and competitive advantage: A natural-resource-based view of firms operating in India. *Journal of cleaner production*, 291, 125249.
- Moglia, M., Cook, S., & Tapsuwan, S. (2018). Promoting water conservation: where to from here?. *Water*, 10(11), 1510.
- Norcia, V. D., Cotton, B., & Dodge, J. (1993). Environmental performance and competitive advantage in Canada's paper industry. *Business Strategy and the Environment*, 2(4), 1-9.
- Rada, E. C., Bresciani, C., Girelli, E., Ragazzi, M., Schiavon, M., & Torretta, V. (2016). Analysis and measures to improve waste management in schools. *Sustainability*, 8(9), 840.

- Singh, S. K., Chen, J., Del Giudice, M., & El-Kassar, A. N. (2019). Environmental ethics, environmental performance, and competitive advantage: Role of environmental training. *Technological Forecasting and Social Change, 146*, 203-211.
- Singjai, K., Winata, L., & Kummer, T. F. (2018). Green initiatives and their competitive advantage for the hotel industry in developing countries. *International Journal of Hospitality Management, 75*, 131-143.
- Wen, T. W. (2018). Energy and environmental sustainability of Malaysian Universities through energy conservation measures.
- Zhao, J., Liu, H., & Sun, W. (2020). How proactive environmental strategy facilitates environmental reputation: Roles of green human resource management and discretionary slack. *Sustainability, 12*(3), 763.
- Zhang, S., Wang, Z., & Zhao, X. (2019). Effects of proactive environmental strategy on environmental performance: mediation and moderation analyses. *Journal of cleaner production, 235*, 1438-1449.

FOREIGN EXCHANGE RESERVE AND ITS IMPACT ON SELECT INDICES OF THE NATIONAL STOCK EXCHANGE IN INDIA

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Abstract

Generally, a country needs foreign exchange reserve mainly, for two reasons, to synchronize its receipt and payment with the rest of the world, and secondly to withstand occasional speculative raids by the dealers in the foreign exchange market. One of the main functions of the regulation of foreign exchange reserves is the maintenance of specific currency stability. Forex reserves play an important role in the design of current and future macro policies in the economy. So, it does play a very important role in the Indian financial system. This paper is primarily concerned with analyzing the volatility with respect to foreign exchange reserves along with select indices of the National Stock Exchange. This concept is attempted to assess the foreign exchange reserve volatility effect on select indices of National Stock Exchange which is considered to be most important for the price fluctuation in the stock market and indeed affect the growth factors. This study is based on the secondary data derived from the world bank report and, reserve bank of India report and, the data bank of the national stock exchange. Yearly data are taken for the analysis. Stationarity has been assessed with the help of the ADF test, further ARCH effect is tested with least squares, volatility clustering and heteroskedasticity test. And the volatility test is been made with the ARCH and GARCH model.

Keywords: *Foreign exchange reserve, Nifty 500, Nifty Large Mid Cap, Nifty Small Cap, Volatility etc.*

Introduction

Financial sector reforms in the beginning of the 1990's, the implementation of various measures in number of structural and institutional changes in different segments of the financial sector. Since globalization and financial sector reforms in India have made immense changes in the financial architecture in the economy. The whole of the institutional reforms accompanying to the globalization Programme, introducing new instruments and changing procedures and widening the network of reexamination of relationship between stock market and foreign sector in India. The relationship of foreign sector and stock market must be kept in view in order to analysis the concept of introducing new reforms in the financial sector its effect how it has reflected in the performance of the particular sectors and also to focus on the growth how it has been impacted on the economy. The analysis of the stock market has been foreseen in this segment that country exposure to the outer world is most readily felt. This present study is focusing on how the foreign exchange reserve is impacting on the select indices of the National Stock Exchange. it would analyses the volatility effect caused due to the changes in the foreign exchange reserve in the economy. It would give an outlook of the exact changes happening in the financial sector.

Review of Literature

Srivastava (2010) examined the effect of Macroeconomic factors like Industrial Production Index, Whole Price Index , Interest Rate, Foreign Exchange Rate, and MorgonStanley Capital International World Equity Index on the return and volatility of the Indian Stock Market by using Johnson's Cointegration analysis and Vector Error Correction

mechanism. The results indicated that Industrial Production Index, WPI, and Interest Rate are the most affecting variables in the long run. The impact of global factors was lower than that of domestic variables on the performance of the stock market.

Singh, Dharmendra (2010) studied the possible causal relationship between stock market index i.e. BSE Sensex, and three key macro-economic variables by using correlation, unit root stationarity test, and Granger causality test. The findings showed that the stock market index, exchange rate, Index of Industrial Price, and Whole Price Index contained a unit root and were integrated of order one. The Bilateral granger causality between Index of Industrial Price and Sensex While Whole Price Index showed a strong correlation and unilateral causality with Sensex which suggested that the Indian Stock Market was tending towards Informational efficiency at least on two macroeconomic variables, viz. exchange rate and inflation.

Arunachalam (2010) research work done on development over two centuries. In this research, an attempt has been made to study the two booming economies of the globe concerning their foreign exchange reserves. This study is mainly based on secondary data published by respective governments and various studies done on this area. One of the paradoxes of India's hugely successful efforts since 1991 to shore up its reserves is that they are mostly in a basket of foreign currencies that are subject to volatility and disruptions.

Ali and Medhekar (2010) made a good study about multifold effects on real monetary external sector determinants by taking data from 1971 to 2010 in the context of Bangladesh. He found that foreign exchange reserve is directly related to GDP and depends on export, import, foreign aid, and remittance in the context of Bangladesh's economy. He also mentioned that international commitment, commercial transportation, and transfer payment of the countries affect the reserves position and it can not be fully predetermined.

Corte and Tsiakas (2011) applied the statistical and econometric techniques on monthly observations from 1976 to 2010 to predict the exchange rates of the Australian dollar, New Zealand Dollar, Japanese Yen, Canadian Dollar, Swiss Franc, British Pound Deutsche Mark/Euro, Norwegian Kroner, and Swedish Kronor in terms of US Dollar. Five models as Uncovered Interest Parity, Purchasing Power Parity, Monetary Fundamentals, Taylor Rule, and the Random Walk model have been compared based on two measures as Mean Squared Error (MSE) and Root Mean Squared Error (RMSE). The outcome of the study shows that in out-of-sample forecasting, uncovered interest parity, Taylor rule, and purchasing power parity depicted better predictions than the random walk model. Moreover, the combined forecasts based on averaging methods are superior to individual models.

Maria and Eva (2011)⁴⁰ examined the forecasting performance of the exchange rates applying the Simple Exponential Smoothing technique, Simple Holt Winter's, Additive Holt Winter's namely Auto-Regressive Moving Average model. They have considered six currencies namely United States Dollar, Chinese Renminbi, Euro, Russian Rubel, British Pound, and Japanese Yen in terms of Romanian Leu covering the sample period consisting of the daily exchange rates from 3rd January 2011 to 22 April 2011.

Statement of the Problem

Foreign exchange reserve increases the wealth and confidence of the nation in case of handling the policy and exchange rate policy. The capacity of the central bank is to stabilize the foreign exchange market and to control the adverse movement in an enhanced form. And the crises forex reserve come to the rescue's mechanism of the country and to absorb the external shocks of the country. In this case, the domestic currency gets backed up by the external assets, and its accessible for the equity market so the country maintains as much as its funds as forex reserve to manage the external obligations. This study is focusing on

identifying the effect and impact of change in foreign exchange reserves in select sectors of the National Stock Exchange. This will help us in attaining the true volatility effect of forex on NSE using various tests such as the ARCH, GARCH models.

The above research problem is discussed with the research problem:

Whether forex reserve is causing volatility in the select sectors of the National Stock Exchange?

Objectives of the Study

To study the volatility effect between foreign exchange reserves, Nifty 500, Nifty LMC, Nifty SC.

Hypothesis of the study

- There is no significant Arch effect between foreign exchange reserve and Nifty500, NiftyLMC, Nifty SC.
- There is no significant Garch Effect between foreign exchange reserve and Nifty 500, NiftyLMC, Nifty SC.

Research Methodology

The study is analytical in nature.

Source of data

The study is based on secondary data. The data are collected from the official websites of the reserve bank of India, the World Bank, and the IMF.

Tools used for the study

Data are analyzed using statistical tools like descriptive statistics, ADF test, the further ARCH effect is tested with least squares, volatility clustering, and heteroskedasticity test. And the volatility test is been made with the ARCH and GARCH model.

Analysis and Interpretation

1.1 Test for stationarity

Table 1.1

Testing of stationarity for foreign exchange reserve in India for the period 2009-2019

Augmented Dickey Fuller (ADF) test – Intercept and Trend				
Data Series	At Level		At first order difference	
	t-statistics	prob	t-statistics	prob
Nifty 500	-1.302541	0.6272	-18.72331	0.0000
NiftyLMC	-1.175971	0.6836	-18.35371	0.0000
Nifty SC	-1.643563	0.4572	-12.49951	0.0000
FER	1.808533	0.9998	-8.007252	0.0000

Source: compiled and computed from secondary data through Eviews

The table 1.1 shows the results of unit root test for stationarity for Foreign exchange reserve using ADF test based on the “intercept”. The results of the test shows that variable is not to be stationary at “level” and found to be stationary at “first difference” which rejects the null hypothesis saying there is stationarity among the variable with P value significant.

1.2 Analysis of ARCH and GARCH Model for Foreign exchange reserve and National Stock Exchange.

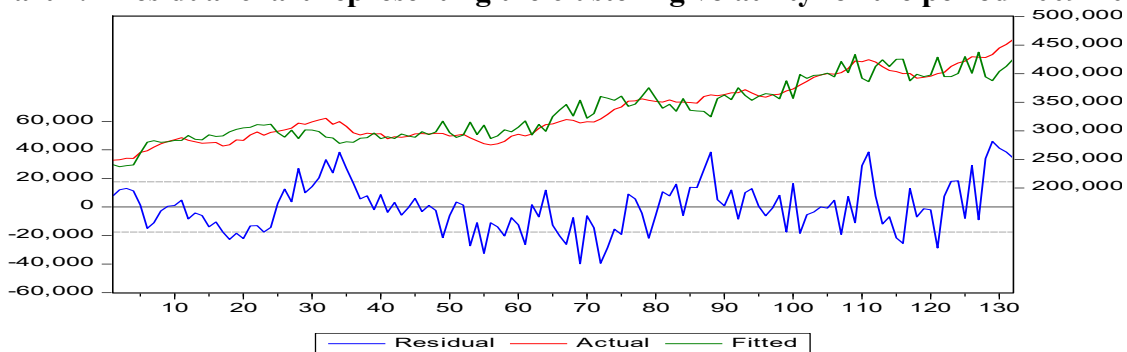
**Table 1.2
Least Squares for Foreign Exchange Reserve and Nifty500 of NSE**

Dependent Variable: FERM				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	190175.9	4664.528	40.77066	0.0000
NIFTY500	1.144330	0.034832	32.85263	0.0000
R-square	0.892499	Mean dependent var		334968.8
Adjusted R-square	0.891672	S.D. dependent var		53319.57
S.E. of regression	17549.15	Akaike info criterion		22.39843
Sum squared resid	4.00E+10	Schwarz criterion		22.44211
Log likelihood	-1476.297	Hannan-Quinn criter.		22.41618
F-statistic	1079.295	Durbin-Watson stat		0.882203
Prob(F-statistic)	0.000000			

Source: compiled and computed from secondary data through Eviews

The above table 1.2 shows the Simple least square regression for foreign exchange reserve along with nifty500 based on the past performance, the coefficient value which indicates a positive sign with 1.144 a positive relationship between foreign exchange reserve and nifty 500. t-stat is above 2 which is found satisfactory. P value is less than significant value of 0.05, therefore, the null hypothesis is rejected. It is concluded that there is positive relationship among the share price of Nifty 500 and Foreign exchange reserve. The R square value is 0.892 which shows variations given by the nifty 500 in the model.

Chart 1.1 Residual chart representing the clustering volatility for the period 2009-2019



Source: compiled and computed from secondary data through Eviews

The chart 1.1 shows the clustering volatility which elucidates that the low volatility is followed by high volatility and high volatility is followed by low volatility which fulfills the condition for ARCH effect test further. There is low volatility in case of first 20 months and found a high volatility in the period of 20 – 30 months.

H_0 = There is no ARCH effect among the Foreign Exchange Reserve and stock prices of Nifty 500 indices

Table 1.3
Testing for ARCH effect using Heteroskedasticity test

Heteroskedasticity Test: ARCH				
F-statistic	25.39079	Prob. F (1,129)		0.0000
Obs*R-square	21.54399	Prob. Chi-Square (1)		0.0000
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.83E+08	42162641	4.341525	0.0000
RESID^2(-1)	0.411680	0.081700	5.038927	0.0000
R-square	0.164458	Mean dependent var		3.05E+08
Adjusted R-square	0.157981	S.D. dependent var		4.30E+08
S.E. of regression	3.95E+08	Akaike info criterion		42.44130
Sum squared resid	2.01E+19	Schwarz criterion		42.48519
Log likelihood	-2777.905	Hannan-Quinn criter.		42.45913
F-statistic	25.39079	Durbin-Watson stat		2.122252
Prob(F-statistic)	0.000002			

Source: compiled and computed from secondary data through Eviews

The table 1.3 explains the ARCH effect using the heteroskedasticity test, the observed R-square value is 21.543, where the p chi square value is 0.00 which is below the significant value of 0.05 which rejects the null hypothesis and concludes that there is arch effect in the model.

1.3 Test for Auto Regression Conditional Heteroskedasticity Test between Foreign Exchange Reserve and stock prices of Nifty500 indices of NSE India for the period 2009-2019

Table 1.4

Test for ARCH model in between Foreign Exchange Reserve and Nifty 500 of NSE

GARCH = C(4) + C(5)*RESID(-1)^2				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.813035	0.708334	1.147814	0.2510
C	176316.8	11098.63	15.88635	0.0000
NIFTY500	1.135224	0.030567	37.13876	0.0000
Variance Equation				
C	1.87E+08	39411569	4.747658	0.0000

RESID (-1)^2	0.350707	0.226911	1.545570	0.1222
R-square	0.899192	Mean dependent var		334968.8
Adjusted R-square	0.897629	S.D. dependent var		53319.57
S.E. of regression	17059.82	Akaike info criterion		22.29839
Sum squared resid	3.75E+10	Schwarz criterion		22.40759
Log likelihood	-1466.694	Hannan-Quinn criter.		22.34277
Durbin-Watson stat	0.937803			

Source: compiled and computed from secondary data through Eviews

The above table 1.4 exhibits that the standard deviation of the model is positive with 0.813 and the P value 0.2510 which is above the significant value of 0.05 indicating the risk and volatility involved in the variable which shows that it is less risky and there is slow volatility in the variable in the ARCH model. When standard deviation goes up risk factor also goes up. RESID (-1) is coefficient value is 0.350 ARCH is the internal effect of foreign exchange reserve of the previous month's volatility. And the P value is above the significant value 0.05 which explains that there is less ARCH effect of volatility on foreign exchange reserve since ARCH effect can influence the volatility of foreign exchange rate.

H_0 = There is no GARCH effect between Foreign Exchange Reserve and Stock prices of Nifty500 indices

Table1.5
Test for Garch effect between Foreign Exchange Reserve and Nifty 500 of NSE

GARCH = C (3) + C (4) *GARCH (-1)				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	193068.3	3928.906	49.14048	0.0000
NIFTY500	1.113749	0.035850	31.06731	0.0000
Variance Equation				
C	5589222.	3420840.	1.633874	0.1023
GARCH(-1)	0.990937	0.013480	73.51073	0.0000
R-squared	0.891524	Mean dependent var		334968.8
Adjusted R-squared	0.890689	S.D. dependent var		53319.57
S.E. of regression	17628.61	Akaike info criterion		22.36566
Sum squared resid	4.04E+10	Schwarz criterion		22.45302

Log likelihood	-1472.133	Hannan-Quinn criter.	22.40116
Durbin-Watson stat	0.831728		

Source: compiled and computed from secondary data through Eviews

The table 1.5 above shows the GARCH effect for the above model for foreign exchange reserve. GARCH is also the internal cause of the volatility on foreign exchange reserve. the GARCH (-1) coefficient shows a .999 and the P value for the above GARCH shows below significant value 0.05. and the P value for Nifty 500 also has a significance at five percent level which shows an positive. Which rejects the null hypothesis by concluding that there is a GARCH effect in the model

1.4 Analysis of relationship between Foreign Exchange Reserve and Nifty Large Mid Cap indices of NSE for the period 2009-2019

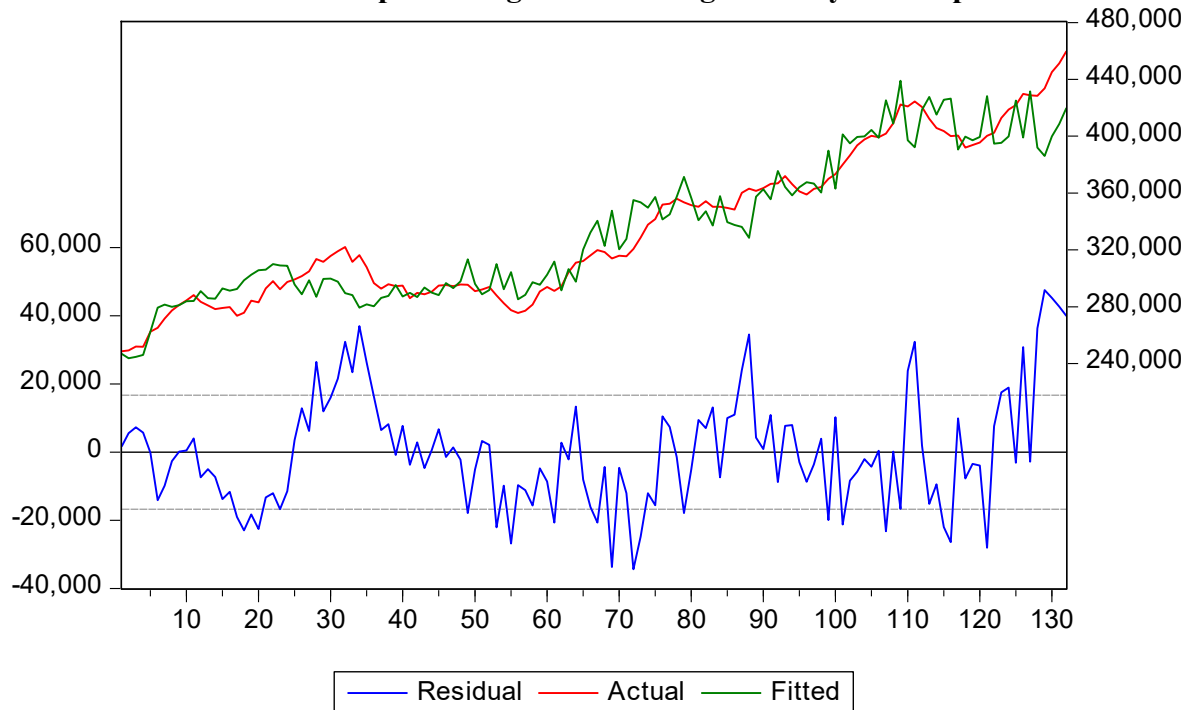
Table 1.6
Least Squares for Foreign Exchange Reserve and Nifty Large Mid Cap

Dependent Variable: FERM				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	207359.4	3963.091	52.32265	0.0000
NIFTYLMC	1.692062	0.048869	34.62472	0.0000
R-square	0.902173	Mean dependent var		334968.8
Adjusted R-square	0.901420	S.D. dependent var		53319.57
S.E. of regression	16740.98	Akaike info criterion		22.30414
Sum squared resid	3.64E+10	Schwarz criterion		22.34782
Log likelihood	-1470.073	Hannan-Quinn criter.		22.32189
F-statistic	1198.872	Durbin-Watson stat		0.792768
Prob(F-statistic)	0.000000			

Source: compiled and computed from secondary data through Eviews

The above table 1.6 shows the Simple least square regression for foreign exchange reserve along with nifty500 based on the past performance, the coefficient value which indicates a positive sign with 1.692 a positive relationship between foreign exchange reserve and nifty 500. t-stat is above 2 which is found satisfactory. P value is less than significant value of 0.05. Hence, the null hypotheses is rejected. It is concluded that there is positive relationship among the share price of Nifty large mid cap and Foreign exchange reserve. The R square value is 0.892 which shows variations given by the nifty 500 in the model.

Chart 1.2 Residual chart representing the clustering volatility for the period 2009-2019



Source: compiled and computed from secondary data through Eviews

The chart 1.2 shows the clustering volatility which elucidates that the low volatility is followed by high volatility and high volatility is followed by low volatility which fulfills the condition for ARCH effect test further. There is low volatility in case of first 20 months and found a high volatility in the period of 20 – 30 months.

$H_0 =$ There is no ARCH effect between Foreign Exchange Reserve and stock price of Nifty Large Mid Cap indices

Table 1.7
Testing for ARCH effect using Heteroskedasticity test

Heteroskedasticity Test: ARCH				
F-statistic	56.09388	Prob. F(1,129)		0.0000
Obs*R-squared	39.70038	Prob. Chi-Square(1)		0.0000
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.26E+08	37247701	3.389002	0.0009
RESID^2(-1)	0.570983	0.076237	7.489585	0.0000
R-squared	0.303056	Mean dependent var		2.78E+08
Adjusted R-squared	0.297654	S.D. dependent var		4.27E+08

S.E. of regression	3.58E+08	Akaike info criterion	42.24294
Sum squared resid	1.65E+19	Schwarz criterion	42.28684
Log likelihood	-2764.913	Hannan-Quinn criter.	42.26078
F-statistic	56.09388	Durbin-Watson stat	2.253785
Prob(F-statistic)	0.000000		

Source: compiled and computed from secondary data through Eviews

The table 1.7 explains the ARCH effect using the heteroskedasticity test, the observed R-square value is 21.543, where the p chi square value is 0.00 which is below the significant value of 0.05 which rejects the null hypothesis and concludes that there is ARCH effect in the model.

Table 1.8

Test for ARCH Model of foreign exchange reserve and Nifty Large Mid Cap 250 of NSE

$$\text{GARCH} = \text{C (3)} + \text{C (4)} * \text{RESID (-1)}^2$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	210656.9	4361.943	48.29429	0.0000
NIFTYLMC	1.611755	0.049463	32.58537	0.0000
Variance Equation				
C	1.52E+08	21647307	7.031253	0.0000
RESID(-1)^2	0.437345	0.210794	2.074747	0.0380
R-squared	0.897443	Mean dependent var		334968.8
Adjusted R-squared	0.896654	S.D. dependent var		53319.57
S.E. of regression	17140.92	Akaike info criterion		22.15000
Sum squared resid	3.82E+10	Schwarz criterion		22.23735
Log likelihood	-1457.900	Hannan-Quinn criter.		22.18549
Durbin-Watson stat	0.692663			

Source: compiled and computed from secondary data through Eviews

The above table 1.8 reveals that standard deviation of the model doesn't exist, which means there is no volatility between the variables in this model. When standard deviation goes up risk factor. RESID (-1) is coefficient value is 0.437 ARCH is the internal effect of foreign exchange reserve of the previous month's volatility. And the P value is above the significant

value 0.05 which explains that there is less ARCH effect of volatility on foreign exchange reserve since ARCH effect can influence the volatility of foreign exchange rate.

Table1.9

Test for Garch Model of Foreign Exchange Reserve and Nifty Large Mid Cap 250 of NSE

GARCH = C (3) + C (4) *GARCH (-1)				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	208738.8	3177.884	65.68484	0.0000
NIFTYLMC	1.660797	0.050807	32.68813	0.0000
Variance Equation				
C	7391035.	2777247.	2.661281	0.0078
GARCH (-1)	0.983627	0.011783	83.47984	0.0000
R-square	0.901525	Mean dependent var		334968.8
Adjusted R-square	0.900768	S.D. dependent var		53319.57
S.E. of regression	16796.27	Akaike info criterion		22.24155
Sum squared resid	3.67E+10	Schwarz criterion		22.32891
Log likelihood	-1463.943	Hannan-Quinn criter.		22.27705
Durbin-Watson stat	0.761400			

Source: compiled and computed from secondary data through Views

The above table 1.9 show the GARCH effect for the above model for foreign exchange reserve and NiftyLMC. GARCH (-1) has a positive coefficient value is 0.983 and the P value which is found to be below the significant value 0.05 which indicates that there is an internal cause of the volatility on foreign exchange reserve on NiftyLMC. And that concludes that there is an GARCH effect in the variables and the GARCH model is positive.

1.5 Analysis of relationship between Foreign Exchange Reserve and Nifty Small Mid Cap indices of NSE for the period 2009-2019

Table1.10

Least Squares for Foreign Exchange Reserve and Nifty Large Mid Cap 250 of NSE

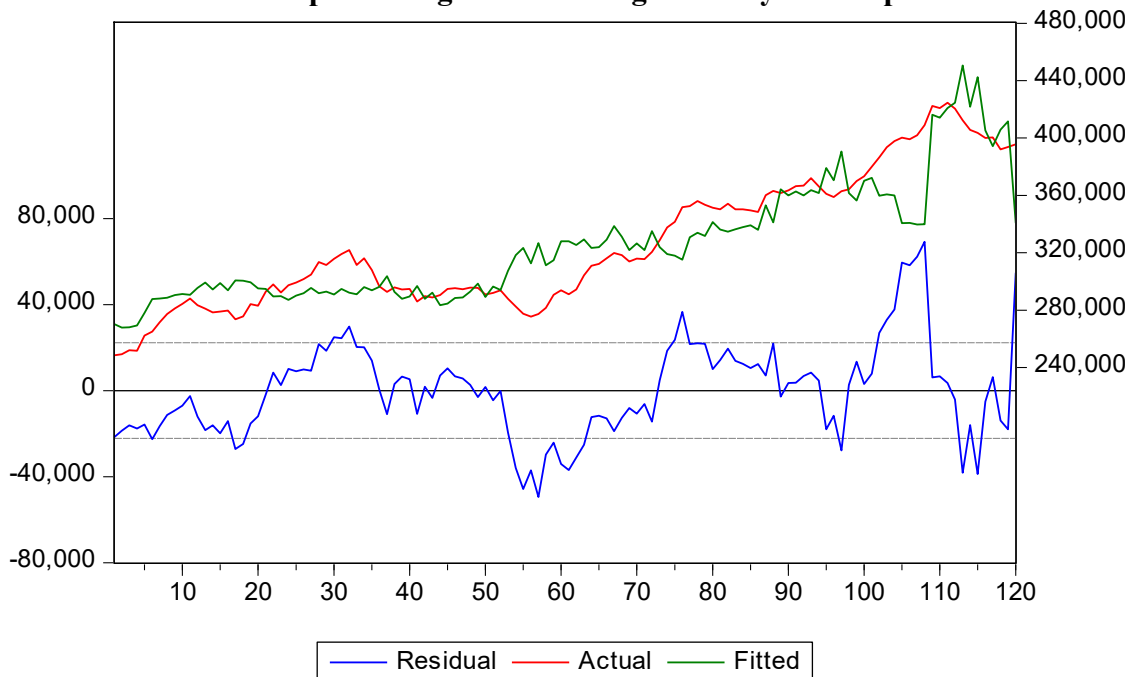
Dependent Variable: FERM				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	250066.3	4294.668	58.22716	0.0000
NIFTYSC	0.868379	0.043472	19.97581	0.0000
R-square	0.771775	Mean dependent var		325690.4
Adjusted R-square	0.769841	S.D. dependent var		46302.43
S.E. of regression	22213.56	Akaike info criterion		22.87132
Sum squared resid	5.82E+10	Schwarz criterion		22.91778
Log likelihood	-1370.279	Hannan-Quinn criter.		22.89019
F-statistic	399.0328	Durbin-Watson stat		0.389625
Prob(F-statistic)	0.000000			

Source: compiled and computed from secondary data through Eviews

The above table 1.10 shows the Simple least square regression for foreign exchange reserve along with nifty500 based on the past performance, the coefficient value which indicates a positive sign with 1.144 a positive relationship between foreign exchange reserve and nifty small cap. t-stat is above 2 which is found satisfactory. P value is less than significant value of 0.05. Hence, the null hypotheses is rejected. It is concluded that there is positive relationship among the Nifty Large Mid cap and Foreign exchange reserve. The R square value is 0.892 which shows variations given by the nifty 500 in the model

Chart 1.3 Residual representing the clustering volatility for the period 2009-2019



Source: compiled and computed from secondary data through Eviews

The chart 1.3 shows the clustering volatility which elucidates that the low volatility is followed by high volatility and high volatility is followed by low volatility which fulfills the condition for ARCH effect test further. There is low volatility in case of first 20 months and found a high volatility in the period of 20 – 30 month

H0 = There is no ARCH effect between Foreign Exchange Reserve and Nifty Small Cap

Table 1.11
Testing for ARCH effect using Heteroskedasticity test

Heteroskedasticity Test: ARCH				
F-statistic	82.30463	Prob. F(1,117)		0.0000
Obs*R-square	49.14211	Prob. Chi-Square(1)		0.0000
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.74E+08	67467521	2.586067	0.0109
RESID^2(-1)	0.670077	0.073861	9.072190	0.0000
R-square	0.412959	Mean dependent var		4.85E+08
Adjusted R-square	0.407941	S.D. dependent var		8.24E+08
S.E. of regression	6.34E+08	Akaike info criterion		43.38953
Sum squared resid	4.70E+19	Schwarz criterion		43.43624
Log likelihood	-2579.677	Hannan-Quinn criter.		43.40850
F-statistic	82.30463	Durbin-Watson stat		1.953859
Prob(F-statistic)	0.000000			

Source: compiled and computed from secondary data through Eviews

The table 1.11 explains the ARCH effect using the heteroskedasticity test, the observed R-square value is 21.543, where the p chi square value is 0.00 which is below the significant value of 0.05 which rejects the null hypothesis and concludes that there is ARCH effect in the model.

Table 1.12

Test for ARCH Model of foreign exchange reserve and Nifty Large Mid Cap 250 of NSE

$$\text{GARCH} = C(3) + C(4) * \text{RESID}(-1)^2$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	250279.4	4805.753	52.07912	0.0000
NIFTYSC	0.862468	0.040874	21.10049	0.0000
Variance Equation				
C	3.02E+08	91195033	3.315503	0.0009
RESID(-1)^2	0.496926	0.314661	1.579244	0.1143
R-squared	0.771696	Mean dependent var		325690.4
Adjusted R-squared	0.769761	S.D. dependent var		46302.43
S.E. of regression	22217.39	Akaike info criterion		22.61399
Sum squared resid	5.82E+10	Schwarz criterion		22.70691
Log likelihood	-1352.839	Hannan-Quinn criter.		22.65172
Durbin-Watson stat	0.384717			

Source: compiled and computed from secondary data through Eviews

The above table 1.12 depicts that standard deviation of the model is positive with 0.813 and the P value 0.2510 which is above the significant value of 0.05 indicating the risk and volatility involved in the variable which shows that it is less risky and there is slow volatility in the variable in the ARCH model. When standard deviation goes up risk factor also goes up. RESID (-1) is coefficient value is 0.350 ARCH is the internal effect of foreign exchange reserve of the previous month's volatility. And the P value is above the significant value 0.05 which explains that there is less arch effect of volatility on foreign exchange reserve since ARCH effect can influence the volatility of foreign exchange rate.

Table 1.13

Test for Garch Model of Foreign Exchange Reserve and Nifty Small Cap 250 of NSE

$$\text{GARCH} = C (3) + C (4) * \text{GARCH} (-1)$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	249903.9	5299.685	47.15448	0.0000
NIFTYSC	0.869717	0.049548	17.55314	0.0000

Variance Equation				
C	2.91E+08	9.61E+09	0.030295	0.9758
GARCH (-1)	0.401624	19.75282	0.020333	0.9838
R-square	0.771772	Mean dependent var		325690.4
Adjusted R-square	0.769838	S.D. dependent var		46302.43
S.E. of regression	22213.70	Akaike info criterion		22.90444
Sum squared resid	5.82E+10	Schwarz criterion		22.99736
Log likelihood	-1370.267	Hannan-Quinn criter.		22.94218
Durbin-Watson stat	0.390706			

Source: compiled and computed from secondary data through Eviews

The table 1.13 shows the GARCH effect for the above model for foreign exchange reserve and Nifty SC. GARCH (-1) has a positive coefficient value with 0.983 and the P value which is found to be above the significant value 0.05 which indicates that there is no an internal cause of the volatility of foreign exchange reserve on Nifty SC. And that concludes that there is no GARCH effect in the variables and the GARCH model doesn't exist.

Findings and Suggestions

Findings based on ADF Test

- The ADF test reveals stationarity at level and further shows stationarity at the first-order difference for nifty500, nifty large mid-cap, nifty small mid cap and foreign exchange reserve.

Findings based on ARCH and GARCH Model

Findings based on the Least-Squares

- The results of least square show a positive relationship among the foreign exchange reserve and nifty 500
- The least-square for foreign exchange reserve and nifty large mid-cap indices shows that there is a high positive relationship between them.
- The least-square for foreign exchange reserve and nifty small-cap indicates a high positive relationship.

Findings based on Volatility Clustering

- The volatility clustering explains low volatility followed by high volatility which fulfills the condition for an ARCH test.
- The volatility clustering is found satisfactory among nifty large mid-cap and foreign exchange reserves.
- Volatility clustering fulfills the condition to run the ARCH effect.

Findings based on heteroscedasticity test

- The heteroskedasticity test shows a significant value below 0.05 means that there is an ARCH effect among FER and Nifty 500
- The heteroskedasticity test for the foreign exchange reserve and nifty large mid-cap, value is below 0.05 concludes that there is an ARCH effect.
- The heteroskedasticity test for foreign exchange reserve and small-cap concludes that there is the ARCH effect.

Findings based on arch model

- The P-value of the model is below a significant level, which is found that foreign exchange reserve and nifty500 have low risk and slow volatility in the ARCH model.
- And there is a less ARCH effect of foreign exchange reserve since the ARCH effect can influence the volatility of foreign exchange reserve.
- The ARCH model concludes that there is no volatility among the variables.
- The P-value of an ARCH model is above the significant level of 0.05, there is a less arch effect of volatility, which means the ARCH effect can influence the volatility of the foreign exchange rate.

Findings based on GARCH Test

- The Garch model shows a GARCH effect and internal cause of the volatility on foreign exchange reserve on the nifty large mid-cap.
- There is no GARCH effect in between foreign exchange reserve and nifty small-cap.

Suggestions:

- For the investors in investing in the share market with low risk can of Nifty 500 and Nifty large Mid Cap 250 indices which shows low risk and low volatile effect due to foreign exchange movements. Which will boost their return in short with less risk.
- The reserve maintained in excess can also be used in agricultural activities by increasing the subsidy provision. And poverty eradication problems can be launched and also solve the socio-economic problems in underdeveloped areas.

Conclusions:

From this study, it can be concluded that the data shows stationarity and foreign exchange reserve select indices of the national stock exchange have a strong positive relationship with each other and there is an internal cause of volatility between foreign exchange reserve which means that forex reserve causes internal fluctuation in the price of select indices of National Stock Exchange. This means that implication of globalization and reforms in the financial sector has surely brought changes in the financial sector, which the foreign funds have played a major role in the growth and expansion of the financial sector of our country, similarly, the forex has played a vital part over the time and changed over years. Noticed high volatility in certain indices whereas it is truly a major factor that brings changes or fluctuations in the stock market when there is a hike or slows down in the forex reserve maintenance.

References:

- Dash, P., & Narayanan, K., Determinants of foreign exchange reserves in India: A multivariate cointegration analysis. *Indian Economic Review*, (2010), 46(1), 83–107.
- Srivastava A, Relevance of Macro-Economic factors for the Indian Stock Market Decision, (2010),7: 69-89.
- Singh, Dharmendra, Causal Relationship Between Macro-Economic Variables and Stock Market: A Case Study for India, *Pakistan Journal of Social Sciences*, (2010),Vol. 3(2), pp. 263-274.
- Arunachalam, P., Foreign Exchange Reserves in India and China. *African Journal of Marketing Management*, (2010) ,2(4), April, 69-79.
- Ali, M.M. and Medhekar, A.,Management of Macro-Economic Performance of Bangladesh: An Empirical Analysis, *International Review of Business Research Papers*, (2010),Vol. 8. No.1. Pp. 64 – 83.
- Ince, O. Forecasting exchange rates out-of-sample with panel methods and real-time data. *Journal of International Money and Finance*, (2010), 43, 1–18
- Cortina, J. M., What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, (2011), 78(1), 98–104.
- Maria, F. C., & Eva, D., Exchange-Rates Forecasting: Exponential Smoothing Techniques and Arima models. *European integration–new challenges*, (2011), 1110.
- Dua, P., & Ranjan, R., Modelling and Forecasting the Indian Re/US Dollar Exchange Rate (No. 197). Centre for Development Economics Department of Economics, Delhi School of Economics. (2011).
- Rezaulk, Maintaining International Reserves Under Three Major Political Reims in Bangladesh. (2011)
- Hojatallah G, Ramanarayana CS, Empirical Analysis of the impact of Foreign Institutional Investment on the Indian, Stock Market Volatility during World Financial Crisis. *International Journal Economics of and Finance*, (2011), 3: 214226.
- Hosseini MA, The Role of Macroeconomic Variables on Stock Market Index in China and India. *International Journal of Economics and Finance*, (2011), 3: 233-243.
- Tripathy N, Casual Relationship between Macro-Economic Indicators and Stock Market in India. *Asian Journal of Finance & Accounting*, (2011), 3: 208-226.
- Priyadarshi Dash & Narayanan K.,Determinants of Foreign Exchange Reserves in India: A Multivariate Cointegration Analysis. *Indian Economic Review*, (2011, Jan- June), 46(1), 83-107.
- Zafar Ahmad Sultan , foreign exchange reserve and india's import demand: a cointegration and vector error correction analysis,international journal of business and management ,(July 2011) ,vol 6,no.7.