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EDITORIAL

Welcome to the new edition of Volume 14 of Dharana - International Journal of Business, presenting an eclectic mix of cutting-edge research papers and insightful book reviews. In this edition, contributors explore diverse facets of business and society, embodying the journal's commitment to exploring dynamic intersections of theory and practice.

Featured research spans contemporary issues, from the transformative potential of Blockchain Technology in accounting to the impact of COVID-19 on sectors like mutual funds and agriculture. Complemented by thought-provoking book reviews, this edition extends gratitude to authors, reviewers, and readers, fostering scholarly vibrancy. May this edition be a catalyst for further exploration and dialogue in the ever-evolving landscape of international business.

Editor-in-Chief

JOURNEY OF DHARANA – BHAVAN'S INTERNATIONAL JOURNAL OF BUSINESS

PREFACE

Situated in the bustling urban center of Bangalore, the M.P. Birla Institute of Management, an associate Bharatiya Vidya Bhavan, boasts cutting-edge infrastructure that greatly benefits its students. This modern setup owes its existence to the generous contribution of Smt. Priyamvada Devi Birla, wife of the esteemed industrialist and philanthropist Sri. Madhav Prasad Birla, who held a deep passion for advancing education. This institute, accredited by AICTE and NAAC, was established under the leadership of Sri. N Ramanuja, the former Chairman and Managing Director of HMT Limited and also the former Chairman of Bhavan's Bangalore Kendra. Affiliated with Bengaluru City University. Dr. N. S. Viswanath proposed to establish DHARANA – BHAVAN'S INTERNATIONAL JOURNAL OF BUSINESS, which came to fruition in July 2007. This scholarly platform was conceived with the primary objective of curating and disseminating a diverse spectrum of academic contributions. It aimed to feature research articles, notes, Ph.D. synopses, book reviews, white papers, student research submissions, and other valuable content encompassing various disciplines within the business field. DHARANA functions as a repository capturing the intellectual endeavours of researchers, practitioners, and like-minded individuals. Initially, DHARANA commenced its journey with three patrons, three associate editors, seventeen members in the editorial board and Dr. N. S. Viswanath serving as the chief editor. On November 20, 2007, DHARANA was officially assigned its ISSN number 0974-0082, marking a significant milestone in the journal's early establishment. Up to this point, DHARANA – BHAVAN'S INTERNATIONAL JOURNAL OF BUSINESS has published a total of 61 research articles. Additionally, the journal has featured a combination of invited articles, research notes, and interviews, amounting to a total of 16 contributions. Moreover, DHARANA has showcased 28 book reviews and has presented the synopses of 21 Ph.D. theses as part of its ongoing endeavours to enrich scholarly discourse within the field of management. Additionally, DHARANA has published approximately 31 research articles that were initially presented at different symposiums also contributing to the wealth of diverse and insightful content.

DHARANA – BHAVAN'S INTERNATIONAL JOURNAL OF BUSINESS has been a steadfast platform, showcasing scholarly contributions and fostering discourse within the arena of management practices. As the journal embarks on its journey to revitalise and rejuvenate its offerings, beginning January 2024, it reaffirms its commitment to scholarly excellence. DHARANA stands poised to continue its legacy as a reputable research journal, fostering intellectual exploration, and inviting scholarly contributions that enrich the understanding and evolution of management practices.

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Blockchain Technology and the Future of Accounting

Emon Kalyan Chowdhury

Abstract

This paper aims to investigate the implications of blockchain technology in improving the quality of financial information. To achieve this objective, the author has studied several published journals, newspaper articles, book series, and case studies. It is observed that blockchain technology can create a platform for organizations to disclose their information voluntarily in the short run while it decreases errors in financial disclosure, enhances the quality of accounting information and reduces information redundancy in the long run. A harmonized movement of accountants, auditors, regulatory authorities, and other relevant parties can extract the optimum benefits of blockchain technology in the accounting ecosystem. The findings of this study will encourage top management and policymakers to adopt blockchain in their business to increase the quality of data and the acceptability of the reports. This study indicates necessary ways outs to improve the quality of accounting information by applying blockchain technology. It further identifies potential threats in implementing blockchain technology and recommends appropriate remedies.

Keywords: **Blockchain, Distributed Ledger Technology, Financial Accounting, Quality, Triple Entry System**

JEL Classification Code: M41, O30

1. Introduction

The power of Blockchain has been growing gradually and the use of blockchain will have ever-changing significance in the world of business and society in general. In short, a blockchain is a digital ledger which exists to record, store and exchange information through a peer-to-peer network (Ducas & Wilner, 2017). Under distributed ledger technology system, there are many duplicates of the ledger that are handled and verified by those who are also on the same network. They are engaged in transactions which are added in a sequential chain with older validated transactions in the form of blocks that are connected through hash also known as a cryptographic signature. A cryptographic signature is a digital output used to verify the authenticity of data. There is no way or any block to be out of order in the blockchain as each blockchain is marked in numerical order and then a temporary process follows which follows the information of the new transaction and the previous transactions that had happened before (Buterin, 2014). What could be said is the main appeal of blockchain is decentralization the of information, records are kept at various nodes instead of one location. The records can easily be accessed by those who have authorization, are in the peer-to-peer network and are immutable as well. In brief, blockchain is a secure, clear, simple, efficient, and very effective way to record and deal with transactions moreover, the records are kept as they are, unchanged and safe just like an online ledger (Buterin, 2014). Although at the earlier stage of blockchain, it was treated as a technology behind the cryptocurrency, nowadays, it is used extensively in the field of accounting also as it can enable transaction process, voucher generation, inventory management, and execution of contracts (Dai & Vasarhelyi, 2017). The top four accounting firms are also gradually embracing blockchain technology to provide improved services to their clients in association with major financial and professional institutions. For instance, Deloitte uses Rubix (Minichiello, 2015), Ernst and Young applies EY Ops Chain (Prisco, 2017) and KPMG uses blockchain-based prototype models (KPMG, 2017) to automatize

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the reconciliation and cross-checking of financial data of clients for healthcare, financial services industry, and public sector to verify invoices, payment system, inventory management and digital contacts. Price Waterhouse Coopers (PWC) uses De Novo (PWC, 2017) in the supply chain. Moreover, these four accounting firms and the American Institute of Certified Public Accountants (AICPA) have jointly created an association to take care of blockchain issues in accounting and auditing (Kokina *et al.,* 2017). Since, at this stage, the uses of blockchain in accounting are very limited and there is a dearth of sufficient literature this study covers the gap by highlighting the implications of blockchain and uncovering the potential challenges in the field of financial accounting.

2. Literature Review

Blockchain is a database that stores data. Although the current applications of blockchain generally contain cryptocurrency and commerce exchange data, any sort of data can be put away in a blockchain. As the title proposes, blockchain stores data within the frame of squares, and each piece is associated (chained) with the past pieces. Blockchains share three common characteristics: A disseminated initiative, peer-to-peer trades, and the utilization of cryptography and hashes (Lewis, 2018). As the data are stored at numerous points known as nodes, it is very tough for hackers to temper the data stored in thousand nodes instantly thus providing extreme security and reliability. Secondly, in blockchain, information flows between peers. This contrasts with a conventional database where information flows between a server and clients. In a blockchain, each hub is associated with several peer hubs, and these peer hubs are in turn associated with several distinctive peer hubs, making up the entire organization comprising of associated peer hubs. Each hub approves and keeps a record of exchanges and communicates its record with others (Chowdhury & Chowdhury, 2017). Further, blockchain does not depend on a central specialist, who/which holds monopolistic control to preserve the database and subsequently can be corruptible. The introductory application of blockchain innovation was Bitcoin (Nakamoto, 2008), an open blockchain where anybody can peruse and take an interest in exchanges. Businesses have exclusive data and need to ensure restricted access to it. In such cases, a private blockchain can be created where commerce can control (give consent to) the members of the blockchain. A private blockchain can also adjust a few highlights of an open blockchain. For example, a private blockchain can have a central specialist or numerous specialists, utilize middle people, and can create a trust-based framework among members (Chowdhury, Dhar & Stasi, 2022).

Even though blockchain is still in its infant stage (Ahluwalia *et al.,* 2020), it will benefit organizations of all kinds to meet the objectives of 4th industrial revolution (Moll & Yigitbasioglu, 2019). Nakashima (2018) claims that blockchain most likely would lead to significant automation of numerous organizational functions that may require either very low or perhaps zero human interaction, for example, the way a newly built self-driving car is operated. As blockchain is efficient and less expensive, massive adoption of this technology will swallow many jobs (Lee & Shin, 2018). Blockchain can be used in accounting to record, store, use and share accounting data ensuring transparency and enhancing data quality, through distributed ledger technology without any human intervention (Ahluwalia *et al.,* 2020). With the replacement of human affords, the blockchain will help to account for to shift from the 3rd to 4th industrial revolution (Dai & Vasarhelyi, 2017). Moll and Yigitbasioglu (2019) advocate that accounting organizations and industries should not be dominated by blockchain rather they should have the necessary liberty to adapt to any given circumstances.

3. Research Methodology

This study has searched papers in the database of Wiley, Emerald, Springer Nature, Taylor and Francis, and the American Accounting Association using the words 'Blockchain in Accounting', 'Tripple Entry System', and 'Artificial Intelligence in Accounting'. Out of 58 papers, a total of 46 papers have been selected considering their relevance and scope.

4. Impact of Blockchain on the Financial Accounting

The goal of traditional accounting and auditing is to establish confidence and to protect the interest of investors by developing necessary mechanisms. The

history of modern accounting can be traced back to trading activities in the 13th century in Italy. To increase accountants' precision, traders developed the double-entry bookkeeping method that has been commonly accepted since it was summarized by Luca Pacioli in his Mathematics textbook published in Venice in 1494 (Basu & Waymire, 2008). The continuous growth of the firms' activities has progressively contributed to demands for external financing, and firms have incentives to gain the belief of capital providers to minimize the cost of capital. Capital providers such as investors and lenders, often need information to monitor the company's financial status and operating performance to guarantee the safety and security of its capital (Chowdhury, 2019). Practically, insiders have more internal information than outsiders about their business operations. The presence of information asymmetries provides firms with the opportunity to manipulate reports. Insiders intentionally mislead outside capital providers about the financial position and operating performance of the entity, to gain more money, or for personal interests (Watts & Zimmerman, 1983). The independent external auditing system was established to ensure the accuracy of the financial statements and disclosure. The auditors discover fraud and errors in the financial statements by conducting auditing procedures and thereby reduce the opportunistic behaviours of insiders to some extent. The external audit system improves a firm's image by reducing the information asymmetry between firms' insiders and external information users (Jensen & Meckling, 1976). However, the notorious accounting scandals like Enron and WorldCom indicate that external auditors failed to preserve their independence or discover frauds and errors in firms' financial statements adequately. Auditors can enhance the possibility of fraud detection by strengthening the organization's internal control system. Although, as a third-party monitoring entity, it cannot eliminate fraud and errors (Healy & Palepu, 2001). After auditing, the reliability of publicly disclosed financial statements and notes is guaranteed to some extent. However, outside information users do not have access to observe a firm's true transactions and accounting process and thus cannot get a full, accurate, and timely understanding of the company's financial position, operating performance, and cash flow situation by simply looking at the financial statements (Chowdhury, 2021). In this critical situation, blockchain emerges as a true resolver. Blockchain records and validates the information in a decentralized way and the blockchain technology guarantees the information to be transparent, secure, tamperproof, and reliable through the distributed ledger technology, hash chaining. It requires no intermediary in the entire process thus efficiency minimizes the information asymmetry between firms and outside investors (Yermack, 2017).

4.1 Challenges

As blockchain technology is in its early stage, there are some challenges which include restricted data processing, regularity challenges and information confidentiality (Yu, Lin, & Tang, 2018). Firstly, the existing blockchain technology is incapable of handling the accounting information of firms which is massive (Zheng, *et al*., 2017; Chowdhury, 2023). The application of blockchain requires huge capital involvement. Secondly, due to technical mechanisms, information can be accessed and used by anybody at any time as it comes up with the characteristics of information transparency. Data transparency may cause significant loss to the firm if they need to maintain any commercial secrecy (Rao *et al.,* 2021).

Finally, regulation will become more complicated because of the diversity, and anonymity of nodes as well as the existence of a "51% attack"[1] to manipulate the stock price and make a one-time profit some nodes are likely to add false information on the blockchain. If nodes that collaborate can handle more than 50% of computing power, the problem is compounded (Zheng *et al.,* 2017). As a result, it is not feasible for all firms to conduct accounting and reporting using blockchain technology in the short run. However, if the technology is advanced enough as well as companies anticipate the proprietary cost of revealing information and decide how much confidential data to put after weighing the cost and benefits, the two issues can be solved. After these two issues are resolved, many firms would be enticed to use blockchain as a major voluntary disclosure platform in the short run as the flow of information will lower the cost of capital and information asymmetry (Shroff *et al.,* 2013).

[1] A 51% attack happens when a malicious user in a network acquires control of a given blockchain's mining capabilities. It implies that the attackers will have more than 50% mining power and can mine faster than everyone else.

4.2 Short-Run Benefits of Using Blockchain Technology

The technical characteristics of blockchain make the information highly transparent, traceable, and tamper-proof as previously stated. Voluntary disclosure through blockchain is an appealing option for firms looking to minimize information asymmetry with investors. In the short run, companies may use blockchain to share some beneficial but not obligatory information which includes earnings forecasts and Corporate Social Responsibility (CSR) reports. Investors benefit from self-disclosure because it allows them to make more informed decisions as well as gain a better understanding of the company (Chowdhury, 2017).

4.3 Long-Run Benefits of Using Blockchain Technology

In the long run, more and more firms and investors will conduct voluntary disclosure after weighing the cost and benefits when they realize that voluntary disclosure is a high-quality signalling mechanism for lowering the cost of trust (Yu *et al.,* 2018). The comparability of information can become an issue as more information is revealed on the blockchain. To improve the information comparability, regulators may require information to be standardized and they may even use blockchain as a major platform for mandatory disclosure anticipating that such use will improve the authenticity, accuracy and comparability of disclosure information while also reducing firms earning management (Chowdhury, 2012; Pimentel & Boulianne, 2020). The source documents of transactions and events, accounting policies and procedures embodied in smart contracts[2] will be the subject of mandatory disclosure and such information should be made available on a real-time basis. Apart from this, companies should also reveal common contents including CSR reports, business reviews, and earnings forecasts on the blockchain which they would like to voluntarily reveal in the short run. The frequency of disclosure should be determined by the firm's discretion and firms will have the incentive to reveal non-confidential information promptly if they want to make a good impression on the market (Fullana & Ruiz, 2021).

4.4 Accounting in the Age of Triple Entry System

The literature recommends switching to a new method of accounting: a triple-entry system, to shift the accounting process onto the blockchain (Chowdhury, 2021). Triple-entry accounting is an expansion of the double-entry system which has been used since the 16th century. As described by Grigg (2005), it can be argued that double-entry bookkeeping is one of the most significant breakthroughs in enterprise and commerce and double-entry bookkeeping was a revolution to the single-entry system at the time of its conception. The single-entry system depended on a simple asset list where the asset was entered and as they moved in and out of the company it was crossed off. The constraints of such a system are quite evident as errors are hardly noticeable, making deception easy. The double-entry system leaves a trace for every transaction as assets and liabilities had to be balanced and transactions had to be matched. However, as Grigg (2005) described, a double-entry system could not be deceived as easily as a single-entry system because it depends on proof or verification of each transaction. This clarifies the essential role of receipts in today's commerce, being the "dominating record of the event". The signed receipt provides a confirmation from both parties that the transactions match and occurred and it is based on the principle that "The User and the Issuer hold the same information" (Grigg, 2005).

For increasing the practice and introducing a method for triple-entry, different proposals have been made over the years (Chowdhury, Abdullah and Tooheen, 2021). Among the lot, Grigg's proposal of third-party validation has appeared to be an eminent one even though others have varied in their suggested application of the third entry. It has recently become specifically intriguing for blockchain although it was proposed in 2005, before the invention of blockchain (Dai & Vasarhelyi, 2017). Grigg's model (2005) suggested a system where two parties transact, and the transaction is confirmed by a third party. The requirement and limitation of the receipts would be removed by this third party. As Grigg highlights / according to Gregg receipt is vital for double entry and "the receipt is the transaction" in the current system. An expansion of the current system along with the introduction of a third party would make it far safer than two party signature and this would establish a validation of the transaction that

[2] A smart contract is a computer program or a transaction protocol which is intended to automatically execute, control or document legally relevant events and actions according to the terms of a contract or an agreement.

is harder to argue. The traditional receipt would become outdated proof of a transaction with this impact. By matching the other party's receipt, a transaction could be simply proved.

Grigg (2005) recommends that with modern cryptography, the digital, cryptographic signature "gives powerful evidentiary force to the receipt". As a result, there will be a reduction in deceitful behaviour and an increase in internal control. Grigg also recommends that transaction and its proof get integrated into the three-party system as well as invoice goes through this process. This entire system would enable a level of automation by running on software.

However, Grigg's proposed triple entry has a major flaw in requiring a reliable and impartial third party. This system hardly seems secure or realistic enough for implementation because of the difficulties posed by this and combined with risks such as cyber-attacks. As this concept offers an automated, secure, and permanent solution, it might be a perfect fit for the blockchain. The distributed ledger could act as a third (digital) party verification by storing verifications and giving a tamper-proof audit trail automatically (Dai and Vasarhelyi, 2017). It could even follow accounting standards or pre-determined business rules with/through smart contracts. The only published and peer-reviewed research on the topic is Dai and Vasarhelyi's study "Toward Blockchain-Based Accounting and Assurance" (2017) and their research shows the detail of how this system operates and the future possibilities of this offer.

5. Discussion and Conclusion

The use of blockchain technology in financial accounting offers the benefits of traceability, timeliness, protection against manipulation and high transparency when compared to traditional financial reporting methods. Additionally, smart contracts can automate the generation of financial statements which can significantly reduce the cost of financial accounting while also improving the timeliness, reliability, and comparability of information as well as, it can minimize errors in disclosure and earnings management allowing the financial statements to correctly mirror the firm's financial position and operating performance. It helps to reduce information asymmetry. However, the above benefits of blockchain technology will take time to materialize due to the current limitations such as financial, technological, policy-related, and well-trained human resources. Accounting and financial reporting will be a feasible and appealing choice in the long run as blockchain technology matures.

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Psychological Burden - Pandemic and its Aftermath

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Abstract

On March 11th 2020, the World Health Organization officially declared the outbreak of Coronavirus (COVID-19) caused by SARS-CoV-2 virus. Interestingly, COVID-19 affected not only the physical health but also the mental health of people, especially that of the vulnerable student community across the globe. A stable mental state is vital for students to attain tutorial success to fulfill their career aspirations and pursue their profession. The pandemic led to decreasing motivation, concentration, attention span and all social interactions creating an imbalance in student mindset. Anger, aggression, frustration and annoyance were also observed. The continuing pandemic situation calling for social isolation, lockdowns, and new methodology of learning through online classes further compounded the problem, thereby taking a toll on the mental health of students with visible dysfunctional behavioural patterns during the pandemic and its aftermath. As predicted by experts the psychological burden of COVID-19 is likely to persist for several years and needs detailed investigation. This study delves into the common mental health conditions experienced by Management students of Bengaluru.

Keywords: **COVID-19, Global Pandemic, Management Students, Mental Health and Well-being, Psychological Burden**
JEL Classification Code: I10 and I20

1. Introduction

The COVID-19 outbreak resulted in a major health crisis and correlated mental health issues threatening both the physical and mental health of people. The aftermath unfolded with severity on the population that was hugely affected due to social distancing, home quarantine, closure of schools colleges and offices and self-isolation to avoid getting sick from the highly contagious virus. As for the young and most vulnerable student community, the pandemic raised a lot of serious concerns with deleterious outcomes on mental health due to confinement and social isolation, online study and tutoring, constraints on physical movements and lack of social interactions with friends and relatives and if infected, quarantine and fulminant mode changes. Further, the sudden changes in learning in terms of the instructional format, online study and lack of face-to-face interactions coupled with limited resources on hand led to anxiety, frustration and depressive thoughts during the initial period of COVID-19 for students in particular. The major pandemic stressors identified were concerns about being infected, fear of family members getting infected, social isolation, frustration, boredom, insomnia, acute stress, depression, suicidal thoughts and most of all lack of correct information on the pandemic which left a trail of death and misery all around with recovery and healing that could take a long time. The psychological distress was more than evident.

1.1 Mental Health Awareness

Mental health is a vital part of a person's overall well-being. It includes **emotional, psychological and social well-being.** It impacts one's thoughts, feelings and actions besides helping determine stress coping mechanisms and

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building healthy personal and professional relationships. Maintaining good mental health helps one to cope with the inevitable day-to-day stress and work productively as well as make informed choices. Mental health is very important at every stage of our life, be it childhood adolescence or adulthood. Mental health problems can impair one's thinking, emotions and behavior. The three key variables impacting mental health are ***Genetics and other biological variables; Life experiences and any known History of mental illness in self or family members*** It is important to be aware of one's mental health and work on it to benefit by involving in activities that bring joy and happiness thereby improving moods to overcome stress and anxiety. A good mental state can improve overall well-being, bring clarity of thoughts and inner serenity build healthy self-esteem and decrease risks associated with chronic stress and depression.

1.2 Background and Need for the Study

Coronavirus belongs to a large family of viruses that could lead to mild or even serious illness if affected. COVID-19 was declared a public emergency of global concern. The widespread outbreak of the virus was associated with the risk of death and put a huge psychological pressure on the population leaving none untouched irrespective of the demographics and psychographics. Interestingly, a huge psychological impact was observed on young students during and after the pandemic subsided.

Initial studies conducted in many countries helped determine the impact of COVID-19 on the physical health of the general population as the world was seized by the pandemic. Consequently, an assessment of the impact on the mental health and well-being became important as it was observed that mental health problems were rapidly rising in the younger generation with students in the spotlight. It was suggestive that students were affected severely due to social isolation, financial distress at home, repeated lock downs, house bound all the time besides new instructional methods for learning. Further experts opined that the pandemic could significantly lead to greater degree of psychological and post-traumatic stress symptoms in students, and thus they were in focus for the research as future "Global Citizens".

1.3 Students and Mental Health

Mental health problems are prevalent and a major concern amongst students in higher education. The aftermath of the pandemic brought this vulnerable section into renewed focus. Academic pressure together with other stressors precipitated mental health problems with an exacerbation of symptoms. Low rate of treatment and at times none led to the aggravation of mental illness leading to dysfunctional behaviours, violence and self-harm in students. The exhaustion of physical and emotional feelings coupled with frustration was observed resulting in *Psychogenic Pain.*

1.4 Factors Affecting Mental Health of Students due to the Pandemic

1.4.1 Perceived Stress

Constant Stress generally affects psychological state of an individual. It causes anger, sadness and worry. It affects one's appetite, energy levels and interests besides decreasing concentration and decision-making ability.

1.4.2 Worry on Wellbeing of Self; Family and Friends

Students were concerned about health and safety of self and family members. It was extremely worrisome, if family members were elderly with comorbidities as the risk of infection, increased multi-fold. It was also unsettling if family had medical professionals or health care workers as they had to risk working in unfavorable situations and places round the clock.

1.4.3 Lack of Concentration

It was difficult for students to focus on class lessons and tasks due to distractions and interruptions because of family and household chores plus constant exposure to online media, web and computer games also affected concentration. For many lack of contact with family and friends was overwhelming leading to their inability to focus on academic work and this continues in the aftermath of the pandemic.

1.4.4 Sleep Habits

Sleep patterns turned erratic and the majority had no regular sleep and wake-up patterns during the COVID-19 outbreak. Some students reported insomnia while others had too much sleep but either way, they were irritable most of the time. The sleep quality was also said to be very poor because of anxiety.

1.4.4.1 Social Isolation

The epidemic exacerbated social isolation. The usual contact with friends, family, relatives and neighbours was significantly reduced. There were no personal interactions, especially the face-to-face meetings and conversations. This affected them badly resulting in severe mood swings and depression.

1.4.5 Poor Academic Performance

The impact of the pandemic on educational achievement was huge with difficulty in adapting to online classes. Students communicated worry about huge changes in educational programs, the nature of classes, specialized issues with online applications and trouble in adapting to web learning. Many students were reluctant to learn and expressed a tendency to procrastinate and this continues to date if not for all, at least for some

1.4.6 Eating Disorders

Sporadic eating times and skipping meals was common. Decreased appetite, eating at irregular times or emotional eating or eating when bored was common during the pandemic disturbing the routine daily eating habits.

1.4.7 Financial Woes

Many students expressed concern about COVID-19 impact on their family finances. Some revealed that their family members, especially earning members, faced job losses and financial problems as a result of wage cuts. Students felt helpless and at times as if they were a burden on the family. The financial status of many families even today remains unresolved but it is slowly limping back to normal.

1.4.8 Online Instructions and Web Learning

Student's educational burden increased as a result of online learning. Extra efforts had to be put in to gain knowledge from the ongoing online classes with their inherent digital complexities. Class tasks and practical activities became difficult to understand and complete.

1.4.9 Depressive Thoughts

Students experienced loneliness, restlessness, helplessness, worries about educational outcomes, uncertainty about the future and over-thinking. All this in addition to the financial difficulties at home were reasons for the recurring depressed thoughts with suicidal tendencies.

2. Literature Review

Zhang and Ma (2020): *"Impact of the COVID-19 Pandemic on Mental Health and Quality of Life among Local Residents in Liaoning Province, China*: - A Cross-Sectional Study". Sentiments and concern for family and friends were experienced during the pandemic COVID-19. Chinese province exhibited average to normal impact on the mental health of the people. The report further prescribed a few significant future exploration subjects for survey for a deep understanding of the effects of the pandemic on health concerns. The study concluded that almost half of the surveyed members (53.3%) did not feel vulnerable because of the pandemic initially.

Liang *et al.*, (2020): "The Effect of COVID-19 on Youth Mental Health". This study sought to identify the impact of COVID-19 in China a few years later, as well as to investigate mental health variables in youth. A total of 584 young people participated in the research, answering questions about their psychological symptoms - Global Health Questionnaire (GHQ-12), Anxiety Disorders Checklist-Civil Version (PCL-C) and Negative Brick Scale Designs. The effects of COVID-19 on adolescent mental health were measured using uniform analysis and uniform performance regression. According to the results of this analytical research, almost 44 % of respondents had a tendency for developing psychological problems. Consequently, it became evident that COVID-19 may have a deep effect on mental health in adolescents. Thus,

local governments need to design effective psychological therapies for youth to cope with mental illness.

Aylie (2020): "Psychological effects of the COVID-19 pandemic on university students in the Bench-Sheko region of southwestern Ethiopia: A cross-sectional study". This analytical research had a total of 322 undergraduate students who were surveyed with a response rate of 97.5%. Depression, anxiety and stress accounted for 21.2%, 27.7% and 32.5%, respectively. As per the study, being a woman, having a history of medical illness with low or moderate social support increased the risk of depression during the pandemic. Not living with parents and relatives who were infected with the virus and the lack of financial benefits for the family further aggravated the problem of going into depression. Drug abuse, depression, anxiety and lack of social support all contributed to an increased risk of stress among university students. In addition, students were likely to be anxiety-prone and .engulfed with sadness as reported.

Zhang *et al.,* (2020*): "Mental Health Problems during the COVID-19 Pandemics and the Mitigation Effects of Exercise*: A Longitudinal Study of College Students in China". The research examined the underlying processes and potential mitigation options for students who were part of the survey at the school with 66 students as respondents. The connection between physical activity and unpleasant emotions were confirmed. COVID-19 mortality had an immediate detrimental effect on sleep quality and reduced aggression. On the other hand, COVID-19 deaths had indirect effect on common negative emotions, stress, anxiety and sleep quality. According to the study, physical exercise relieved most of the common unpleasant feelings experienced. This research suggested that pandemic outbreaks may have had an indirect effect on emotions due to stress and poor sleep quality. A practical approach to relieve high strung mood was to do daily physical exercise and have proper sleep. Finally, the spread of disease led to decrease in aggression of people while increasing awareness of the "Fragility and Value of Human Life."

Hughes (2020): "Youth mental health in the time of COVID-19". The psychosocial effects of the pandemic especially on children, are highlighted in this research report by Youngminds UK (Youngminds, 2020; Holmes *et al.,* 2020). In this UK study, 83% of children with mental health problems felt that COVID-19 was having a negative impact on their mental health, with particular concern about social interaction and lack of organized activity. This research surveyed children with a variety of mental health problems, including compulsive disorders, anxiety disorders and anorexia to find out if the pandemic crisis exacerbates their pre-existing mental problems. One in every four children surveyed who were receiving mental health services before COVID-19 stated that they could no longer access help as a result of the "Pandemic Crisis." The research study further explained the short and long term negative impact of COVID-19 on children, outlining the consequences of the pandemic on the population at large.

Sundarasen *et al.,* (2020): *"Psychological Impact of COVID-19 and Lockdown among University Students in Malaysia: Implications and Policy Recommendations".* This research study was an online cross-sectional survey with self-assessment anxiety model being used. Of the 983 respondents, 20.4%, 6.6% and 2.8 exhibited moderate, severe and most severe hysteria respectively. Female students aged 18 years and above along with pre-university students were found to be associated with higher levels of hysteria. As per this research, financial constraints, online education, uncertainty about future, careers / job opportunities were the most stressful aspects for most students. Age, gender, education and living conditions also had a significant impact on anxiety and stress levels. The Center for Disease Control and Prevention (CDC) had issued guidelines for coping with stress and anxiety among students.

Almeida *et al.,* (2020) *"The impact of the COVID-19 pandemic on women's mental health"*. The research attempts to examine the effects of the pandemic on the emotional well-being of women. The survey conducted was based on clinical outcomes of psychological wellness and regenerative psychiatry concerning expecting women. As per the exploration, women are bound to have mental issues during a pandemic and more so in the event of labour and childbirth to go into labour and give birth to a child without any family member or friend could not only be frightening but highly stressful leading to fear and mental break down. The study suggests data about accessible hotlines, havens and help required for

families of expecting women and those going into labour to minimize their stress and anxiety in the given situation.

Salari *et al.*, (2020): "Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systematic review and meta-analysis". This research paper found the predominance of stress, tension and sorrow in almost everybody during the COVID-19 pestilence. Stress was common among the general public, while bitterness was also dominant. Subsequently, the study underlined the importance of securing the emotional wellness of the general population so as to foster good mental health with appropriate therapies and treatments to upgrade the psychological well-being of the vulnerable groups during the COVID-19 pandemic.

Wang Y *et al.*, (2021): "The impact of quarantine on mental health status among general population in China during the COVID-19 pandemic". This study was a cross-sectional study across China to identify the psychological effects of Quarantine on the general population to identify factors contributing to mental health outcomes in detainees, particularly teams with epidemiological conditions to provide better information to intervene with the goal of reducing mental health risks. An online survey was conducted to collect socio-demographic data and opinions on COVID-19 from 56,679 people from 34 provinces in China. The research stated that Quarantine, working part-time and having adequate information and facts on COVID-19 were all associated with fewer mental health issues in people. The research further added that the experience of community confinement was associated with fewer psychological problems. Further research is required to identify interventions to reduce psychological effects of quarantine during a pandemic and to investigate all potential semi-permanent effects of isolation on mental health.

Fruehwirth *et al.*, (2020) - "The COVID-19 pandemic and mental health of first-year college students". This research involved **e**xamining the effect of COVID-19 stressors to evaluate the effect of disease transmission on the emotional wellness of college students Information from 419 students aged 18-20 years after the Corrid-19 flare-up. (October 2019-February 2020) and (June/July 2020). The pervasiveness of moderate to extreme uneasiness increased from 18.1% to 25.3% during the 4 months before the episode, and it was observed that moderate to serious melancholy increased from 21.5% to 31.7%, as indicated in the meta-research conducted. The study found that by putting necessary measures in place such as distance instruction and social disconnection during the pestilence, colleges could very much lessen the ill effects on emotional wellness due to the spread of COVID-19.

3. Research Design and Methodology

A descriptive research design was chosen, primarily describing and explaining the factors likely to affect the mental health and well-being of students. Some of the factors identified were Stress and Anxiety, Health concerns of Self and Family, Lack of Concentration leading to poor academic performance and progress Poor sleeping and eating habits, Social isolation, Disruptive thoughts etc.

3.1 Research Gap

The review of literature suggests that research studies mostly experimental in nature have been conducted across countries to understand the Mental and Psychological health of the general population as well as medical professionals, health workers, working women and others but very few studies were conducted to understand the effects of COVID-19 and its aftermath on the Mental health and well-being of the student population. Thus, the research aims to fill this gap by examining and analyzing the impact of COVID-19 on the mental health and well-being of Management students in Bengaluru.

3.2 Problem Statement

The COVID -19 situation in the recent past has brought to the open all the ill effects of it on the mental health and well-being of people in general and students in particular. Students have been impacted the most yet there is a paucity of literature on the same. Thus, it is imperative to conduct a study on students to identify the major stressors due to the pandemic. The study seeks to help and support students by creating awareness on developing mindfulness and appropriate coping mechanisms to overcome issues disturbing their psychological well-being in the last few

years. The study aims to suggest ideal strategies and support systems for students to come out strong in the face of COVID -19 and its variants which have caused immense harm and damage to mankind. In short, the impact of COVID has been devastating for many across the globe and is felt even now despite almost a few years gone by.

3.3 Objectives of the Study

1. To examine the impact of COVID-19 pandemic and its aftermath on mental health and wellbeing of Management students in select Colleges and Institutes in Bengaluru.
2. To identify the major pandemic stressors and suggest strategies and coping mechanisms for Management students in Bengaluru to overcome mental health issues and challenges encountered.

3.4 Selection of the Study Base

Bengaluru is known for Management education with its reputed Management colleges and Institutes. The quality of management education imparted and the high rate of success in student placements across the industry is appealing. Thus, many students arrive here, from across the country to pursue their Management courses to fulfil their career aspirations.

3.5 Sampling

The Convenience Sampling procedure is adopted because of accessibility and availability of participant students in the selected colleges and institutes of Bengaluru. The Sample size constituted 122 respondents drawn from 8 reputed Management Colleges and Institutes such as Jain, Presidency, RV, PES, CMS, MPBIM and others for conducting the research study. Participant demographics (age, gender, academic year and major) were compiled, and a structured questionnaire was administered.

3.6 Limitations of the Study

1. Time Constraint.
2. The findings of the study are limited to the Management Students of Bengaluru.
3. The findings are suggestive and may not be conclusive.
4. Student response veracity due to the stigma attached to mental health concerns.

3.7 Hypotheses - The following Hypotheses are Floated for the study. They have been Tested using Simple Linear Regression

3.7.1 Perceived Stress and Academic Performance

$H0_1$: There is significant relation between Perceived Stress and Academic Performance due to COVID-19 Pandemic

3.7.2 Difficulty in Concentration and Academic Progress

H_{11}: There is significant relations between Difficulty in Concentration and Academic progress due to the COVID-19 Pandemic.

3.7.3 Perceived Stress and Concern on Own Health and Health of the Loved Ones

H_{12}: There is significant relation between Perceived Stress and Concern on own Health and Health of the Loved Ones due to COVID-19 Pandemic.

3.7.4 Depressive Thoughts and Sleeping Habits

H_{13}: There is significant relation between Depressive Thoughts and Sleeping Habits due to COVID-19 Pandemic

4. Data Analysis

4.1 Regression Analysis

Reliability Test: A structured questionnaire was self-designed and used to collect responses from 122 respondents from the select Management colleges and Institutes of Bengaluru. The Cronbach's alpha coefficient for 40 items is 0. 858, suggesting that the items have excellent internal consistency and acceptance.

Analysis and Interpretation: From Table 1, R value is 0.297 indicating the correlation between the independent and dependent variables as positive but not very significant statistically. R Square and Adjusted R Square are .088 and .081 respectively which signifies that 91.2% of the variance in Perceived Stress cannot be explained by Academic Performance only and there may be other variables and attributes influencing the Perceived Stress. The model is a good fit as the F value is greater than 1,

Table 1. Model summary and ANOVA of perceived stress on academic performance

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.297[a]	.088	.081	.891

a. PS1 Predictors: (Constant), PS1

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	9.230	1	9.230	11.638	.001[b]
	Residual	95.164	120	.793		
	Total	104.393	121			

a. Dependent Variable: AP1

b. Predictors: (Constant), PS1

which is 11.638. The p-value computed is 0.01, which is less than 0.05. (at 5% level of significance). Therefore, the alternative hypothesis is accepted. Thus, there is significant relationship of Perceived Stress on the Academic Performance of students.

Table 2. Model summary and ANOVA of difficulty in concentration and academic progress

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.377[a]	.142	.135	.864

a. PS1 Predictors: (Constant), DC1

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.805	1	14.805	19.831	.000[b]
	Residual	89.588	120	.747		
	Total	104.393	121			

a. Dependent Variable: AP1

b. Predictors: (Constant), DC1

Analysis and Interpretation: The R value is 0.377, as shown in Table 2, indicating correlation among independent and depended variable as positive and moderate. The R Square and Adjusted R Square values are 14.2% and 13.5%, respectively, which signifies that 85.8% of the variance in Difficulty in the Concentration of students cannot be explained by Academic Progress alone. Therefore, there must be other variables and attributes that may influence Difficulty in Concentration. The model is a good fit since the F value is greater than 1, which is 19.831. The p-value computed is 0.000, which is less than 0.05. (at 5 percent level of significance). Therefore, the null hypothesis is rejected, and alternative hypothesis is accepted. Thus, there is a significant relation between Difficulty in Concentration and Academic Progress of students due to the COVID-19 Pandemic.

Analysis and Interpretation: Table 3 shows the R value as .475, which indicates that the correlation of independent and depended variable is positive and moderate. R Square value is 22.5%, and Adjusted R Square is 21.9% which signifies that 77.5% of the variance in Perceived Stress cannot be explained by Concern on Own Health and the Health of Loved Ones alone, and there must be other variables and attributes that influence Perceived Stress in students .

The model is fit since the F value is more than 1, which is 34.887. The p-value computed as 0.000[b], which is less than 0.05 (at 5% level of significance). Overall, the regression model is precise. Therefore, the null hypothesis is rejected, and alternative hypothesis is accepted**.** Thus, there is significant effect of Perceived Stress regarding Concern on Own Health and Health of the Loved Ones due to COVID-19 Pandemic.

Analysis and Interpretation: Table 4 indicates the R value as 0.372 which suggests a correlation between independent and dependent variable. The R Square value is 13.8% and the Adjusted R Square value is 13.1%. This means that 86.2% of the variation in Depressive Thoughts cannot be explained just by Sleeping Habits alone. There must be other variables and attributes that influence Depressive Thoughts. The model is fit since the F value is greater than 1, which is 19.277. The p-value computed is 0.000, which is less than 0.05. (at 5 per cent level of

Table 3. Model summary and ANOVA of perceived stress on concern on own health and health of loved ones

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.475[a]	.225	.219	.979

a. Predictors: (Constant), COH1

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	33.439	1	33.439	34.887	.000[b]
	Residual	115.020	120	.958		
	Total	148.459	121			

a. Dependent Variable: PS1

b. Predictors: (Constant), COH1

Table 4. Model summary and anova of depressive thoughts and sleeping habits

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.372[a]	.138	.131	1.255

b. Predictors: (Constant), DT1

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	30.377	1	30.377	19.277	.000[b]
	Residual	189.098	120	1.576		
	Total	219.475	121			

a. Dependent Variable: SH1

b. Predictors: (Constant), DT1

significance). Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. Thus, there is a significant effect of Depressive Thoughts on the Sleeping Habits of students due to the COVID-19 Pandemic.

4.2 Regression Results at a Glance

1. There is a significant relationship between Perceived Stress on the Academic Performance of students due to the COVID-19 Pandemic.
2. There is a significant relationship between Difficulty in Concentration on Academic Progress of students due to the COVID-19 Pandemic.
3. There is a significant relationship between Depressive Thoughts on Sleeping Habits of students due to the COVID-19 Pandemic.
4. There is a significant relationship between Perceived Stress on Concern on Own Health and Health of Loved Ones of students due to the COVID-19 Pandemic.

Thereby all alternative hypotheses floated are accepted and all null hypotheses rejected.

5. Discussion and Conclusion

Mental Health is paramount as it can affect one's overall health and well-being in humans. Two major concerns identified amongst students were "Anxiety and Irritability". Scholastic and personal challenges also led to acute psychological discomfort in them. Further it elevated the existing psychological problems associated with young adults just out of their teenage years , amplifying the problem. With the outbreak of COVID-19 across the globe, the costs incurred in terms of health, wellness and lost lives have been appalling and beyond belief. The way it has effected students and family livelihoods has been devastating, and could take a long time for recovery.

The effects on physical health, psychological and mental health of those contracting the disease has been huge. Needless to say, the aftermath of the pandemic has been hurtful, beyond expectations and brought to the forefront the **"Frugality and Uncertainty"** of Human Life and Existence. As we are all aware, uncertainty is inherent in life. The reality is that change is inevitable, even when we wish for status quo, so nothing is certain and random events like the COVID -19 teach us important lessons in life that of **Humility and Grace, Compassion and Help and most of all Acceptance of the Inevitable** as and when it happens, when caught helpless and totally unprepared to deal with the fallout.

Facilitating Better Mental Health and Well-Being: COVID-19 and its Aftermath

Self-management basically helps in overcoming stress in most situations. A Positive mindset with activities like Meditation, Yoga, Physical and Breathing exercises, following healthy daily routines and positive affirmations do help maintain good mental health in the long run. Other ways to overcome stress and anxiety are to be busy with Hobbies, Playing both indoor and outdoor Games, Spending Time with Pets, Journaling, Music and Dance, Reading and Writing, Drawing and Painting and Gardening. All these activities keep the mind fresh and go a long way in managing stress and other psychological problems

Volunteering and Social Service generally uplift and boost self-confidence, self-esteem and self-satisfaction. Volunteering to serve the sick, old and underprivileged people can help beat stress and anxiety and at the same time provide an inner satisfaction of helping the distressed due to the pandemic crisis which continues to loom large on the population especially the financial crisis which in turn impacts many other aspects of daily life. Doing social work in the community is a huge stress buster, as the focus is on others rather than the self which provides a sense of satisfaction and gives one a sense of pride and identity. By helping others one tends to help one's self, thereby overcoming mental health problems to a great extent.

Seeking a support system is very necessary to help people facing mental problems. Open Communication with family and friends besides the medical professionals can help cope with stress and anxiety. Connecting with friends and relatives through virtual means like Zoom and video calls also help focus on good things rather than brood on the gloominess of the depressive situations. ***Typically receiving support from skilled healers and certified counsellors besides the Mobile service apps for mental health problems can help alleviate mental health problems.***

The practice of self-compassion and self-care are key during adverse times. One must practice self-care to handle acute stress and anxiety and find suitable strategies to overcome them. It is very important to learn to be compassionate and avoid self-judgment. It is normal to experience nervousness and fear when uncertain events such as the pandemic occur. The ultimate goal in such times is to stay fit both physically and mentally in whatever way one can to stay afloat and wait for things to subside and pass.

Find strength and courage from adverse events of the past. Many adverse events have occurred in the past, like the flu epidemic, plague, etc., with similar challenges encountered by people across the globe. Strength and courage may be drawn from the past experiences of them and how they weathered the situation. By doing so, one can gain confidence to face the challenges and draw strength that all mankind is in it together and seek solace in one another from a sense of common humanity.

Enjoying the Streaming Services and Social Media also helps in overcoming stress and anxiety to a large extent. Live games, music, web series, sports programs and on demand videos on topics of interest are all a part of the various streaming services available but they need to be kept to a bare minimum as they are highly addictive leading to binge watching and other side effects. Social media also helps but spending too much time on social media is a strict no as it can become an addition that is very difficult to get off with too many bad effects that may be counterproductive.

Finally, it is up to each individual to identify a suitable coping mechanism that best suits him or her to overcome the challenges encountered due to the pandemic and uncertainty that is inherent in life, to the come out a winner. One must be motivated to learn on how to deal with random events such as the Pandemic as it is a known fact that life is always associated with uncertainty. Most of all , it is vital to understand, accept and acknowledge the harsh reality of how random events such as the pandemic may uproot lives and be a detriment to human existence.

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Impact of COVID-19 on Mutual Funds in India

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Abstract

The global impact of the COVID-19 pandemic has left an indelible mark on various sectors, resulting in a significant downturn across most industries, with the notable exception being the pharmaceutical sector. This widespread economic turbulence has created a period of considerable uncertainty for investors in mutual funds. This research endeavours to conduct a comprehensive and in-depth analysis of the prevailing market conditions in the aftermath of the COVID-19 pandemic, with a particular focus on the mutual fund landscape. The primary objective is to scrutinize the circumstances faced by both individual investors and mutual fund trusts. Specifically, this article seeks to delve into the extent to which the pandemic has influenced the Mutual Funds Industry in India. It aims to draw comparisons between the situations that prevailed before the outbreak of Covid-19 and those that emerged in its wake. To collect and evaluate the necessary data for this analysis, the study has carefully selected the time frame spanning from December 2019 to June 2021. This period encompasses critical phases of the pandemic and its economic repercussions. The research relies on secondary data obtained from the official website of AMFA (Association of Mutual Funds in India), which offers a chronological record of Net Asset Management values. The results of this study aim to provide precise, insightful, and comparative information within the specified study period, shedding light on the impact of the pandemic on mutual fund investments in India.

Keywords: **Asset Management, Behavioral Finance, COVID-19, Investors' Sentiment, Mutual Funds, Mutual Fund Investments**

JEL Classification Code: G20

1. Introduction

The inception of mutual funds traces back to Europe in the year 1774, courtesy of a visionary Dutch merchant named ***Adriaan Van Ketwich***. Ketwich's groundbreaking concept aimed to aggregate investments from numerous individuals, and he set in motion a trust known as '***Eendragt Magt***', which translates to "Unity Creates Strength" (Rouwenhorst, 2004). This innovative approach encouraged small-scale investors to participate in diversified portfolios, marking the birth of the first-ever closed-end fund. However, 'Eendragt Magt' had a finite lifespan and was eventually liquidated in 1824. Yet, Ketwich's pioneering idea did not fade into obscurity. Bankers in Dutch and Utrecht town seized upon it and redefined it as the 'Profitable and Prudent' fund. This transformation paved the way for the modern concept of mutual funds that we recognize today. Over time, the mutual fund industry has evolved and grown into one of the most rapidly expanding sectors worldwide, offering a diverse array of investment opportunities to a broad spectrum of investors.

In India, the Reserve Bank of India took a significant step in the development of mutual funds by establishing a company known as the 'Unit Trust of India' in 1963. This move was made as a joint venture with the objective of facilitating mutual fund investments, particularly targeting small and less knowledgeable investors. The aim was to encourage these individuals to pool their funds into diversified portfolios, thereby fostering financial inclusion and wealth creation for a broader segment of the population.

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1.1 What is a Mutual Fund Investment?

A mutual fund investment is a financial vehicle that pools the funds of multiple small investors who share common investment objectives. This pooling of funds is typically managed by a company, trust, agency, or a group of individuals. The collected funds are then invested in a diversified portfolio of assets, which may include equities, bonds, securities, or other financial instruments. Each investor in the mutual fund owns a portion of the overall holdings of the fund. The returns generated from the investments are distributed proportionately among all the investors after deducting expenses. This distribution is based on the Net Asset Value (NAV) of the mutual fund.

The Net Asset Value represents the value of the mutual fund in the share market. It is calculated by taking the total value of cash and securities held by the fund and subtracting any liabilities (if applicable). This result is then divided by the total number of investors in the fund to determine the NAV per share. One common type of mutual fund is an **"Open-Ended Mutual Fund**." In open-ended mutual funds, investors have the flexibility to buy or sell shares of the fund at any time. These funds do not have a fixed maturity date, and their key feature is liquidity, allowing investors to enter or exit their investments as needed, unlike systematic investment plans, which may have fixed investment periods.

2. Review of Literature

Venkatesha (2021) In this paper, the primary emphasis of derivatives lies in risk management rather than the complete elimination of risk. In the realm of regular business operations, financial equity derivatives serve as a potent tool for investors to mitigate risks. Derivative investors need to stay attuned to market trends, regulatory changes, government policies, and other factors that influence derivative investments. This awareness, coupled with factors like return potential and investment opportunities, enables investors to make informed and prudent decisions. The current study explores investor perceptions regarding derivatives investments in the Karnataka region. Data gathered from 322 respondents through a questionnaire survey reveals a heightened interest among investors in understanding the equity derivatives market segment. To further enhance investor understanding, the study recommends that companies provide seminars and workshops related to the market, thereby enriching investor knowledge and appreciation.

Corbet *et al.* (2020) At the onset of the global COVID-19 pandemic in 2020, Chinese financial markets played a central role in both the physical and financial aspects of the contagion. The findings of this paper reveal that several features typically associated with a "flight to safety" were evident during the analyzed period. Notably, the volatility relationship between the primary Chinese stock markets and Bitcoin underwent significant changes amidst this intense financial turmoil. This paper offers various insights into the reasons behind this phenomenon, and these shifting correlations in times of financial stress offer additional evidence supporting the cautious integration of Bitcoin into mainstream portfolio strategies, highlighting its potential diversification benefits.

Mittal (2018) This paper provides a concise and informative overview of the concept of investment, emphasizing its fundamental distinction from speculation or gambling. It underscores the importance of making investment decisions based on a thorough analysis of economic, industry, and company factors. The diverse range of investment opportunities available to individuals, catering to their varying risk tolerance levels are highlighted by the author. It mentions examples such as bank deposits, bonds, shares, money market instruments, mutual fund schemes, insurance policies, real estate, precious objects, and derivatives as avenues for potential investment. This paper effectively introduces the subject matter of the paper, which is the exploration and evaluation of different investment avenues in India. It sets the stage for readers by defining investment and its principles.

Arora and Marwaha (2014) The article present a valuable exploratory study that delves into the awareness of stock market investments and the financial literacy of individual stock investors, with a particular focus on the demographic factors of age, income, occupation, and qualification. The methodology, which involves administering a structured questionnaire to 100 individual stock investors in Punjab, provides a solid foundation for the research. One of the strengths of the study is its use of both quantitative and qualitative data analysis techniques, including frequencies, percentages, weighted average scores, and the application of the Chi-square test to examine differences in financial

literacy across demographics. This comprehensive approach adds depth and reliability to the findings. The results shed light on the varying levels of awareness among investors regarding different investment options, with a notable emphasis on equities. The identification of areas where investors exhibit high, moderate, or low levels of knowledge regarding stock market traits provides a nuanced understanding of financial literacy. Furthermore, the article's implications for financial service providers are significant. By recognizing the gaps in investor knowledge, providers can tailor their educational efforts to enhance investor awareness and guide them toward suitable investment choices. This research ultimately contributes to the broader discussion on financial literacy and its impact on individual investment decisions.

Murithi *et al.* (2012) This study focuses on analyzing investor behavior to identify optimal investment avenues in India. It underscores the significance of an investment strategy, which serves as a blueprint guiding investors in selecting the most suitable investment portfolio to attain their financial objectives within a defined timeframe. Investment not only contributes to personal wealth growth but also plays a pivotal role in fostering overall economic growth and prosperity. Furthermore, the process of investing supports companies by enabling them to raise capital through financial markets, thereby facilitating business expansion and development. Specific types of investments offer various advantages to investors, corporations, and society at large. The study highlights that Indian investors exhibit a strong awareness of portfolio allocation concepts and the relationship between risk and return in investment decisions. The guiding principle of this investment approach can be summarized as "Prevention is better than Cure," emphasizing the importance of proactive risk management while seeking to enhance income. This prudent strategy aligns with the goal of achieving higher returns with lower associated risks.

3. Research Methodology

This exploratory research study aims to conduct an in-depth analysis of the impact of the COVID-19 pandemic on the Indian Mutual Fund Industry. It leverages secondary sources of information to derive relevant insights and conclusions, ultimately serving as an informative resource for retail investors seeking a better understanding of the situation. The study relies on secondary data collected from a variety of sources, including newspaper articles, magazine articles, reports, and web materials. By aggregating and analyzing information from these diverse sources, the research seeks to provide a comprehensive overview of how the Mutual Fund Industry in India has been affected by the challenges posed by the COVID-19 pandemic.

The primary objective of this study is to offer valuable insights and knowledge to retail investors, enabling them to make informed decisions in the context of the Mutual Fund Industry amidst the ongoing global health crisis. By distilling and presenting relevant information, the study serves as a tool to enhance the understanding of the situation and its potential implications for investors, thus empowering them to navigate these challenging times more effectively.

3.1 Objectives of the Study

1. To study the financial variations faced by the Mutual fund trust during Covid-19.
2. To make a comparative study on the Mutual fund investments pre and post Covid-19

4. Analysis and Interpretation

The term "Asset Under Management" (AUM) pertains to the collective market value of assets that a mutual fund holds at a specific point in time. Table 1 provides an overview of the Total Net Assets Under Management (NAUM) at semi-annual intervals across various investment categories. Upon examining the table, it becomes apparent that the Total Net Asset Under Management in June 2020 experienced a decline of 6.46% when compared to the figures from December 2019. However, there was a notable upturn in NAUM by December 2020, witnessing a substantial increase of 21.23% in comparison to June 2020. Furthermore, by June 2021, the surge in NAUM continued, rising by 12.46% compared to December 2020.

These fluctuations in Total Net Assets Under Management highlight the dynamic nature of mutual fund investments and the changes in the market conditions over the specified time periods. Such data can be crucial for investors and analysts in assessing the performance and growth of mutual fund assets, enabling them to make more informed investment decisions.

Table 1. Net assets under management *(In Crores)*

Type of Funds/ Period	July - Dec 2019	Jan - June 2020	July - Dec 2020	Jan - June 2021
Open-ended	47,37,565.36	44,35,523.46	54,77,316.21	62,72,243.36
Close-ended	3,64,000.61	3,38,767.49	3,10,395.15	2,37,160.64
Interval funds	3,295.55	760.35	746.08	236.00
Total	51,04,861.52	47,75,051.30	57,88,457.44	65,09,639.99

Source: (AMFI, 2020)

Table 2. Funds mobilized *(In Crores)*

Type of Funds/ Period	July - Dec 2019	Jan - June 2020	July - Dec 2020	Jan - June 2021
Open-ended	94,37,400.22	59,92,637.92	38,99,761.34	40,53,019.61
Close-ended	1,671.89	1,098.19	-	1,925.93
Interval funds	0.60	1.67	2.09	1.30
Total	94,39,072.71	59,93,737.78	38,99,763.43	40,54,946.84

Source: (AMFI, 2020)

Table 2 provides an overview of the total funds mobilized during each half-year period, commencing from June to December 2019 and extending through January to June 2021. The data in Table 2 reveals some notable trends in fund mobilization. In particular, it is evident that the total value of funds mobilized into financial markets in June 2020 witnessed a substantial decrease of 36.50% when compared to the figures from December 2019. This suggests a significant shift in investor sentiment or market conditions during that period.

Furthermore, by December 2020, there was a continued decline, with a further reduction of 34.94% compared to June 2020. However, there is a positive note in the data as well. In June 2021, the mutual funds mobilized into various productive purposes in financial markets amounted to Rs. 40,54,946.84, representing a growth of 3.98% when compared to the sum of mobilized funds in December 2020. These fluctuations in fund mobilization reflect the dynamic nature of financial markets and the response of investors to changing economic and market conditions. Such data can be invaluable for financial analysts and investors in understanding the trends in fund flows and their implications for investment strategies.

Table 3 vividly illustrates the significant impact of the Covid-19 pandemic on the mutual fund investment

Table 3. Comparison of Pre-COVID and Post-COVID scenarios *(In Crores)*

Category	Asset Under Management			Funds Mobilized		
Type of Funds/ Period	July 2019 – June 2020	July 2020 - June 2021	%	**July 2019 – June 2020**	**July 2020 - June 2021**	%
Open-ended	91,73,088.82	1,17,49,559.57	+28.08	1,54,30,038.14	79,52,780.95	-48.46
Close-ended	7,02,768.10	5,47,555.79	-22.08	2,770.08	1,925.93	-30.47
Interval funds	4,055.90	982.08	-75.79	2.26	3.39	+50%
Total	98,79,912.83	1,22,98,097.43	-24.46	1,54,32,810.48	79,54,710.27	-48.46

Source: (AMFI, 2020)

landscape. The data highlights a substantial shift in investment patterns in the post-pandemic period. Specifically, it is evident that the Assets Under Management (AUM) have experienced a noteworthy decrease of 24.26% after the onset of the pandemic. This decline in AUM indicates a significant reduction in the total market value of assets held by mutual funds during this period.

Moreover, the data shows that the total sum of funds mobilized through mutual fund investments has declined by a staggering 48.46%. This sharp decrease in funds mobilization underscores a substantial drop in investor confidence and activity in the mutual fund sector, reflecting the uncertainty and economic challenges brought about by the Covid-19 pandemic.

Table 4.3 serves as a clear indicator of the pandemic's profound influence on the mutual fund industry, with both AUM and funds mobilization experiencing significant declines. These findings underscore the need for investors and financial professionals to adapt their investment strategies and risk assessments in response to changing market conditions and external factors.

5. Discussion and Conclusion

In line with our first objective, the Covid-19 pandemic has had a significant setback on the Mutual Funds Industry, leading to a 24.26% reduction in the sector's asset holdings. At the onset of the pandemic, when the nation was under lockdown, all types of mutual fund investments experienced a downturn as trading activities came to a complete halt. However, as trading gradually resumed to normal conditions with some restrictions after July 2020, open-ended funds showed a remarkable recovery, surging by 28.08%. Conversely, during the same period, mobilized funds witnessed an overall decline of 48.46%, although interval funds managed to rise by 50%. This overall decrease in fund mobility underscores the pandemic's impact on the financial circumstances of people in India. The analysis findings indicate that concerning asset accumulation, interval funds and close-ended funds were negatively affected, whereas open-ended funds displayed an upward trajectory amidst the pandemic, recording a notable increase of 28.08%.

In summary, the Covid-19 pandemic significantly impacted the Mutual Funds Industry, causing a 24.26% reduction in asset holdings. The initial lockdown resulted in a downturn in all mutual fund investments, but open-ended funds rebounded by 28.08% after trading resumed. Mobilized funds, however, declined by 48.46%, with interval funds being a notable exception, rising by 50%. This overall drop reflects the pandemic's financial impact in India. The analysis highlights open-ended funds' resilience during the pandemic, contrasting with negative effects on interval and close-ended funds.

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A Study on Green Marketing Practices of Quick Service Restaurants at Bengaluru

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Abstract

Eating out is one of most liked habits of human community worldwide. In today's scenario, going out and eating food is considered a favourite activity, people celebrate life events like birthdays, anniversaries, and family get-togethers, and spend quality time enjoying the ambiance, and special delicacies made by expert chefs. There is also specific reason like friend meetings, and formal and informal meetings happen at restaurants. Themed cafes are popular like "a lot of things happen over a cup of coffee" café coffee day, Star Bucks where the general public sits and works with laptops, discusses official/unofficial matters, and stay for long hours.The present study aims at understanding the consumer perspectives of green practices at quick service restaurants, as the globe is moving towards green initiatives to protect/save the planet for the main kind. It is also well understood that in India, the middle-aged and adolescent segment visits restaurants /cafes more often. The study entirely focuses on examining the Green Practices that are used by Quick Service Restaurants (QSR). The data was collected online by using google forms. The findings land on the perspective that most are using environment-friendly processes in some or the other form.

Keywords: **Cafes, Energy Management, Green Practices, Quick Service Restaurants, Recycling, Waste Management**

JEL Classification Code: M30, M39

Abbreviations: QSR – Quick Service Restaurants, DV – Dependent Variable

1. Introduction

Fast food restaurants or quick service refers to off-the-cuff dining cafés in which semi-prepared food is readily made perfectly and served hot or cold to consumers. These kinds of restaurants usually offer a limited provender or lesser choice for consumers with hardly any new menu, and therefore, the food is prepared in bulk, which is further heated and packaged for parcels or dine-in. They provide a good sort of economical cost for the foods and beverages, like fries, burgers, sandwiches, kinds of pasta, pizzas, soft drinks, alcoholic drinks, desserts, cakes, pastries, chicken, meat and other seafood stuff, etc., that are inspired by the local edibles and cuisine. Consumers like the special taste of these foods, so they flock to these cafes. Apart from this, these restaurants are usually operated as franchise operations or independent restaurants that have standardized items or partially prepared edibles by controlled and best-operated supply chains.

A remarkable growth in the recent past of the food industry, alongside the widespread adoption of certified business models by popular restaurant chains across the globe, is one of the major factors creating a growth-oriented outlook in the market. Furthermore, the increasing working population and awareness about products/cuisines and chains of cafes, and sense of taste buds across the world have enhanced the consumption

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of these products. With hectic schedules, the working class gets busy there's widespread adoption of on-the-go food, quick bites, and fast food is a part of lunch/ brunch is a part of corporate culture that can be readily purchased and consumed even while traveling. Quick-Service Restaurants (QSR) are often part of a chain like McDonald's, KFC, Subway, Taco Bell, and many more.

1.1 Global Overview

Normally, fast food is understood as pre-cooked food that may be frozen and sometimes may contain saturated fats also, but of late many of them offer a better healthier choice for consumers. Nowadays, some fast-food chains are including nutritional information, by doing so, they are giving information to consumers who are calorie conscious. In recent times, they are serving salads and fresh fruit drinks as healthier options for consumers.

Quick-service restaurants and nutrition restaurants have evolved as serious providers of this mass-produced food, which has been attracting an increasing number of individuals towards experiencing and enjoying their services. Convenience, quality, and economy in terms of both time and money are a number of the crucial factors acting in favour of the marketplace for nutrition and quick-service restaurants. Polaris market research reports that QSR revenue forecasts 246.89 billion USD by 2030 also it includes cuisine, most preferred are American, Italian, Mexican, Japanese, and others. They are growing at the rate of almost five percent annually.

According to the report, the QSR market recovered early during the pandemic as traders had protocols to manage hygiene and door delivery. Many fine dining restaurants closed during the pandemic, but these managed to recover losses by efficient delivery systems. In highly populated countries like China, India, and other Southeast Asian countries QSR market is expected higher growth.

As far as the efficient delivery system is concerned, they have centralized management for application-based orders and call centre service, and calls are diverted to the nearest outlet so that customer can get their delivery as fast as they can. In the meantime, Domino's Pizza created a wave in the market by giving time-oriented delivery to customers. To deliver orders at a shorter duration to the customers these restaurants have introduced advanced wireless conveyor chains so that orders are delivered in lesser time. In some places, these QSRs have also introduced 'Drive thru" so that the customers can wait in the car and pick up their orders. These new methods have helped their business grow. Apart from the global chains of café, local restaurants are also creating better customer service. These cafés try to deliver the best experiences to customers by organizing kitchen tours to customers, some of them have put a bell at the entrance, the happy customers can ring the bell, the pictures are displayed at the entrance of the restaurants, not only that but also, children are given balloons, surprise toy gifts and they recognize their employees of the month. These all encourage the customers to think positively and visit these places more often.

1.2 Indian Overview

Rapid urbanization, change in living styles, nuclear families, the culture of dining out, short eats, snacks, and changes in work timing all have created the development of fast-food restaurants in urban areas. Almost cities in India are popular for some are the other eating items. As quoted by many, In India every hundred meters, there is new cuisine and new delicacy, for example, "Vada pav' and "samosa' there are some unique chains of café which supply this snack. Some commonly liked point in food all over the globe is taste, quality, presentation, etc. One point commonly identified is that potato is liked by most of the population in the world. Especially in India, a lot of chains have developed for serving snack food like Goli, Tiwari's, Chai Point, etc., also there is a huge market for these categories. The growth of QSR is truly a mirror image to consider.

The growth of QSR is driven by umpteen number of factors like rise in income, change in eating habits, preferences of individuals likes and dislikes, etc., website Kompass.com mentions that an average Indian spends Rs 2500-4000 per year on short eats and snacks. So also, an increasing number of food delivery apps in India like Swiggy, Zomato, and Food Panda many utilize these services to order food from home/office, especially in urban areas. Published studies say some cafes and QSRs have 10,000 to 15000 outlets in India. It is expected to increase in the near future. Another important point to add is the employment pattern in this industry is also going well with the average population of seven to eight lakh doing jobs in this kind of industry. It is said that the Indian fast-food industry is

growing at a rate of 40 percent. There are many venture capitalists pumping funds into these QSRs, one such café is California Burrito.

However, it is well understood that in this category of food, hardly any cutleries are used, it is also known as food on the go. Common menu items in this nutriment include sandwiches, pasta, burgers, chips, fries, mashed potatoes, corns, papads, nuggets, Tacos, hot dogs, Pizzas, sweets, frozen desserts like ice-creams, etc. Although many types of research pinpoint urban areas, to mention because of highways connectivity in India, semi-urban areas have also flourished with these kinds of ventures with kiosks near petrol pumping stations. As consumers visit gas pumping stations, others can indulge in buying other items required/available. This industry has also seen a lot of failures too, moreover, street foods are popular in the country like India. Many studies reiterate that the specific age of 18 to 35 contributes more to these different kinds of eating. An important phenomenon is that Indian consumers are accepting all new products and delicacies. Indian consumers are changing their lifestyles to suit the needs of present-day requirements. The main reason is that the population is really young and is open to ideas and ventures. Many researchers also pinpoint that Indians' discretionary spending is increased by the usage of credit /debit card/UPI wallets and their eating habits are also changing. This is one of the reasons for the growth of the service sector and emerging economy. The research also pinpoints that the working class is spending more on "on-the-go food". To add to the mentioned point that more spending in urban areas than in rural and semi-urban areas.

India has many international players in the QSR category like McDonald's, Taco Bell, KFC, Dunkin Donuts, Subway, and many more. These are also the popular ones in India. These popular QSRs has a combo of vegetarian and non-vegetarian menu. The cafes are present in urban localities, Malls and market areas with more footfalls. Indian have accepted international brands by smaller modifications to the local attachments like paneer and potato in the cuisine. Though an international chain of restaurants has matched to the taste buds of the Indian style of eating, so many happy customers in India, and their sales are moving towards an upward trend. Taste consistency is the key for these kinds of quick foods, but these QSRs have kept the taste of the menu consistently the same, and the consumers are getting the uniformly same taste for many years.

1.3 Theoretical Background

Green marketing comprises many activities, Pride and Ferrell (1993) puts forth all the activities which encompass designing, marketing, packing, and all other activities, which are concerned with sustainable practices, which are friendlier for the environment. Today's global organizations are giving prime importance to sustainable practices which are less harmful to the environment. Green marketing practices include even the service sector. Today, all organizations/cafes may make it a practice to use products that are easily recyclable or biodegradable and do not cause much effect on the earth. Most of the products which are called "green or sustainable" do not contain toxic chemicals, are usually not tested on animals, and are made of natural ingredients. Green products that are easily decomposable or reusable are to be used by these cafes in order to prove themselves to be a part of the "Go Green initiative". Donaldson (2005) in his study concluded that sustainable practices change the consumer's mindset and move towards positivity. Most consumers are also aware of sustainable practices. They do not buy products that are polluting the earth. They are called "green consumers". The global ecological imbalance has alerted the common man to initiate concrete efforts to prevent further deterioration of ecological environment. Globally influential organizations have started their efforts to market and practice green marketing.

2. Literature Review

Gupta *et al.* (2013) mention the challenges of sustainable marketing in calibrating the knowledge of consumers about green initiatives, to save the land from pollution. More populous countries like India and China need to priority to green movements as there are more chances of pollution and carbon footprints. Word of mouth and consumer evangelism can create more awareness of green initiatives. DiPietro *et al.* (2013) findings of the study in "going green for QSR" most of the consumers accepted the green practices and were willing to pay a little more for those activities. Fayoum University study (2018) on restaurants identifies sustainable buying practices

sourcing from local and from farmers directly, as waste reduction practices as well. This particular study was conducted the in the city of Cairo and concentrated on tourist-based restaurants. The outcome presented in the study concluded that employees' awareness of sustainable practices was at an average level, and energy conservation, water conservation, and overall green practices were at a medium level only. The study also portrays a lack of financial resources for implementing sustainable activities and hardly any training for the employees on green initiatives. The study also mentions very little support from the customers.

Hilario's (2014) study conducted in the city of Manila used 10 fast-food restaurants for research purposes. The study points out there is a registered association on green practices, three parameters were considered for the study energy conservation, water usage, and pollution prevention. The results showcase that awareness of green practices is present and implementation is weak. The responses got from the employee's state that they are still using plastics and other foam products for packing the takeaways. The authors reiterate government should forcibly bring in laws to implement sustainable practices in restaurants. Eren (2023) tests green restaurant image with environment-friendly practices, and revisits intention also with service quality and other practices. The study covers fast food centres and hotels in Istanbul. The results point out at consumers may get the influence of service quality and green restaurant image. There is a positive impact on consumers' thought processes. The customers are responding positively towards green practices and the green image of the restaurants. Agarwal and Kasliwal's (2017) study evidence state that knowledgeable consumers are considering green products, which are less harmful and they are willing to pay little extra as far as urbanites are concerned. The article also points out that restaurant owners/stakeholders should consider transforming consumer mindsets to the green initiative so that more awareness can be created.

Chand and Garge (2017) a large study was conducted with 400 hotel employees regarding green practices. It revealed that most of them have replaced paper cups with regular ceramic /porcelain cups for tea and coffee. Housekeeping practices with the replacement of laundry plastic bags with recyclable bags. Another important point o be added is the usage of natural light in the daytime to save light energy during day time. Wine is to be sourced from winemakers who use sustainable practices, and vegetables and fruits are to be sourced directly from farmers, rainwater harvesting, using wastewater for flushing, and other purposes. Finally, the article states that many of the Indian hotel industries are practicing eco-friendly practices.

3. Methodology

The research primarily focuses on the green marketing practices of quick-service restaurants. Further data was collected from the customers who visit Quick service restaurants with the help of a questionnaire, and the same has been represented with the necessary statistical tool with the findings, suggestions, and conclusion.

3.1 Objectives

1. To investigate the awareness of consumers about green practices in quick-service restaurants.
2. To examine the impact of green marketing in the present scenario at quick-service restaurants.

3.2 Sampling

Sampling Technique – Convenience sampling method.

Sample Size – 107 responses were collected from consumers.

Sample unit – The customers of quick service restaurants in Bengaluru.

3.3 Sources of Data

Primary data - The primary data was collected using a systematic questionnaire method, by using Google Forms. These forms were distributed to the customers of quick-service restaurants in Bengaluru and further their responses have been recorded and analyzed.

Secondary data -Most of references were from websites and journal articles.

3.4 Tools for Data Collection

In order to collect data that is required to carry out analysis, the self-prepared questionnaire is distributed to respondents. This questionnaire was electronically administered through google forms to the respondents. The questionnaire contained binary parts whereas the

initial part comprised general questions which examine the demographic status of consumers. The second fold used to determine green practices of QSR of consumers is examined by asking questions related to determinates of the independent variable through the Likert scale (Strongly agree to be the highest and strongly disagree being the lowest).

4. Data Analysis

Reliability Test

Since the researcher has adopted self-designed questionaries in order to collect the responses, therefore, reliability test has been conducted on the basis of 107 respondents. The calculated value of Cronbach's alpha output of the same is as follows.

The result for 50 items is 0.969 suggesting that the items have excellent internal consistency and are acceptable.

Hypothesis

H1.1: There is a positive correlation between green procurement QSR on Green practices

H1.2: There is a significant correlation between Waste minimization in QSR on Green Practices

H1.3: There is a positive correlation between Recycling on Green Practices

Table 1. Frequency

		Frequency	Percentage
Gender	**Male**	**79**	**73.8 %**
	Female	**28**	**26.2 %**
Age	20-30	88	82.2 %
	31-40	11	10.3 %
	41-50	02	1.9 %
	Above 51	06	5.6 %
Qualification	Graduate	38	35.5 %
	Post Graduate	48	44.9 %
	College but not graduate	12	11.2 %
	Others	09	8.4 %
Occupation	Student	39	36.4 %
	Part time-Employed	06	5.6 %
	Full time-Employed	48	44.9 %
	Self-Employed	05	4.7 %
	Home Maker	05	4.7 %
	Others	04	3.7 %

Source: author

Table 2. Reliability statistics

Cronbach's alpha	No of Items
0.969	107

Source: author

Table 3. Correlation Matrix

		G	GP	WM	R
Green Practices	Pearson's Correlation	1	.664**	.715**	.688**
Green Procurement	Pearson's Correlation		1	.793**	.826**
Waste Minimization	Pearson's Correlation			1	.864**
Recycling	Pearson's Correlation				1

Source: author

Interpretation

All three of the tested attributes like green procurement (0.664), Waste minimization (0.715), and Recycling (0.688). The set assumptions (Hypotheses) H1.1, H1.2, and H1.3 are accepted, and it is supporting.

Regression models showing effects of green practices attributes and green practices in quick service restaurants**:**

1. "Green Procurement"

H0: There is no significant consequence of green procurement on green practices.

H1: There is a significant consequence of green procurement on green practices.

Interpretation

The tables present the details of R-value 0.711a showing the indication that the interrelationship between predictors and DV is positive and it is moderate. It is noticed that the R Square value is 50.60%, which signifies that there is a reasonably good fit between the data consistency and green procurement. This means that 49.40% of the variation in green practices cannot be explained by green procurement alone. Therefore, there must be other

Table 4. Model Summary, ANOVA and coefficients of green procurement

Model	R	R Square	Adjusted R Square	Std. Error of Est.
1	0.711[a]	0.506	0.482	2.531

a. Predictors: Green procurement. b. DV: Green Practices

Source: author

Table 5. ANOVA[a]

Model	R	Sum of Squares	DF	Mean Square	F	Significance
1	Regression	662.796	5	132.559	20.697	.000[b]
	Residual	646.867	101	6.405		
	Total	1309.664	107			

a. Predictors: Green procurement. b. DV: Green Practices

Source: author

variables and attributes that may influence green practices toward QSR.

Since the F value is more than 1, that is 20.697, the model is fit. The calculated value (p-value) is 0.00b, at the minimum level of 0.05 (5% level(alpha)). Overall, a regression model was accurate and precise.

Therefore, there is an interrelationship between predictor and DV. From the analysis, it can interpret and conclude that there is a significant effect of green procurement on green practices.

Table 6 shows an interrelationship between green procurement on green practices in QSR because of the Sig. value of GP3, GP4, and GP5 is 0.012, 0.000, and 0.037, respectively, which is less than the acceptable value of 0.05.

2. "Waste Minimization"

H0: There is no impact of Waste minimization on Green Practices

H1: There is an impact of Waste minimization on Green Practices

Table 6. Coefficients[a]

Model	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	t	Sig.
GP1	**-0.222**	**0.301**	**-0.057**	**-0.737**	**0.463**
GP2	0.396	0.299	0.106	1.321	0.189
GP3	0.774	0.303	0.218	2.551	0.012
GP4	1.240	0.257	0.419	4.825	0.000
GP5	0.545	0.258	0.191	2.113	0.037

Note: GP = Green procurement

Source: author

Table 7. Model Summary, ANOVA and coefficients of waste minimization

Model	R	R Square	Adjusted R Square	Std. error of Est.
1	.729[a]	0.531	0.508	2.466

a. Predictors: Waste minimization. b. DV: Green practices.

Source: author

Table 8. ANOVA[a]

Model	R	Sum of Squares	DF	Mean Square	F	Significance
1	Regression	695.365	5	139.073	22.866	.000[b]
	Residual	614.298	101	6.082		
	Total	1309.664	106			

a. Dependent Variable: Green practices. b. Predictors: (Constant), Waste minimization.

Source: author

Interpretation

The tables, present the value (R) as 0.729[a] which clearly indicates that the interrelationship between the predictor and DV is positive but moderate. It is noticed that the R Square value is 53.10%, which signifies that there is a reasonably good fit between the data consistency. This means that 46.90% of the variation in green practices cannot be explained by Waste minimization alone. Therefore, there must be other variables and attributes that may influence green practices.

Since the F value is more than 1, that is 22.866, the model is fit. The calculated value (p-value) is 0.00b, 0.05 (5% level (alpha)). Overall, a regression model was accurate and precise.

Therefore, the positive hypothesis is accepted. It can conclude that there is an interrelationship between Waste minimization on Green Practices.

Table 9 results show that there is a notable effect of Waste minimization on green practices in QSR because of the Sig. value of WM2, WM3, and WM5 is 0.050,0.001, and

Table 9. Coefficients

Model	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	T	Sig.
WM1	0.172	0.314	0.039	0.549	0.584
WM2	0.641	0.324	0.161	1.982	0.050
WM3	1.033	0.288	0.298	3.593	0.001
WM4	0.450	0.261	0.162	1.727	0.087
WM5	0.943	0.254	0.320	3.716	0.000

Note: WM = Waste Minimization

Source: author

Table 10. Model summary, ANOVA and coefficients of recycling

Model	R	R Square	Adjusted R Square	Std. Error of Est.
1	.719[a]	0.517	0.493	2.502

a. Predictors: Recycling b. DV: Green practices.

Source: author

Table 11. ANOVA

Model	R	Sum of Squares	DF	Mean Square	F	Significance
1	Regression	677.199	5	135.440	21.629	.000[b]
	Residual	632.465	101	6.262		
	Total	1309.664	106			

a. D V: Green practices b. Predictors: Recycling.

Source: author

0.000, respectively, which is less than the acceptable value of 0.05.

3. "Recycling"

H0: There is no significant effect of Recycling on Green Practices

H1: There is a significant effect of Recycling on Green Practices

The third question of the research study is aimed at testing the effect of "Recycling" of QSR on Green practices. The table represents the outcome of the regression, 'Recycling and Green Practices.

Interpretation

The tables show the R-value is 0.719[a] which indicates that the correlation between independent and dependent variables is positive and it is moderate. It is noticed that the R Square value is 51.70%, which signifies that there is a reasonably good fit between the data consistency. This means that 48.30% of the variation in green practices cannot be explained by Recycling alone. Therefore, there must be other variables and attributes that may influence green practices. Since the F value is more than 1, that is 21.629 the model is fit. The calculated value (p-value) is 0.00[b], which is minimal at 0.05 (at 5%). Hence, the alternative hypothesis is accepted. From the above analysis, it is interpreted that there is a significant interrelationship between "Recycling on Green Practices".

The coefficient table details the effect of "Recycling on Green Practices" in QSR because of the Sig. value of R3, R4, and R5 is 0.000,0.017 and 0.001 respectively which is less than the acceptable value of 0.05.

5. Discussions and Conclusion

It is observed that customers truly appreciate the green practices in the restaurants because it helps the environment and gives the customers something good feeling. Many customers viewed the green practices as really interesting, and unique. As noted, in urban areas small efforts are being made to reduce plastic waste. Also, sign boards are being put up to learn more about environmentalism and ways to help the environment. Green practices give a competitive advantage compared with others. This research also observed the significant influence of green practices attributes on the customers of the Quick service restaurants.

The main focus was to investigate the implementation and usage of Green Practices at restaurants and cafes. The study mainly focused on the customer's point of view. It can be well observed that green practices are indeed important from the perspective of the customers as it brings a positive impact. An emphasis is being made to save the planet and sustainability practices are a top priority to many countries and organizations. It is important for the Quick service restaurants to follow more and more Green Practices for the betterment of the future.

Table 12. Coefficients

Model	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	T	Sig.
R1	0.205	0.294	0.055	0.697	0.488
R2	0.145	0.305	0.041	0.474	0.636
R3	1.110	0.295	0.337	3.761	0.000
R4	0.630	0.260	0.223	2.425	0.017
R5	0.898	0.257	0.294	3.492	0.001

Note: R = Recycling

Source: author

5.1 Suggestions

Nowadays, people are more focused on protecting the environment. Though following green practices are helpful but marketers need to understand and take note of some relevant considerations, such as:

The marketer needs to educate and train their employees and make them concentrate more on implying green practices and apply the same to the customers visiting the restaurants.

There should be more laws and training that include information about the objective of Green Practices as a way to prepare cafes/for the future outlook. In a country like India, insisting on the employees and making it a protocol may bring successful implementation of Green Practices.

Point to note: restaurants have implemented/implemented only certain Green Practices like the packaging for consumers in recyclable packets, minimum wastage of energy, etc., but the whole organization's process is completely not a green corporation. It may take time to completely implement but there is an identifiable movement happening, which is a very positive response.

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Modernization of Agriculture: An Essence of Agriculture 4.0

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Abstract

Agriculture 4.0 signifies the transition from a conventional to a modern approach through the use of artificial intelligence, robotics, or other smart gadgets. The use of technology boosts the efficiency of farmers and enhances their earnings. Considering that both the Union and State Governments are willing to construct digital infrastructure and educate farmers. The first step toward modernizing agriculture is to enhance digital awareness among farmers. This study aims to comprehend the government's digital programs and Information and Communication Technology (ICT) initiatives, farmers' awareness levels, and the limiting factors for the implementation of digital inclusion programs. The research was carried out in the Tumkuru district of Karnataka, and both primary and secondary data were used. The outcomes suggest that the majority of farmers have a basic understanding of ICT tools and are willing to participate in the digitization process.

Keywords: **Agriculture, Digitalization, Digital Awareness, Farmers, ICT**

JEL Classification Code: Q13, Q16

1. Introduction

Digitalisation and ICT are the buzzing twines of the 21st century. They can leverage any operations by using electronic devices. Digitalisation is the process of applying technology to the business and conversion of information into digital format; It enables easy, customised, cost-effective and user-convenient operations. ICT refers to a diverse set of technological tools and resources used to transmit, store, create and exchange information. Digitalisation ICT is omnipresent it can be applied in every dimension of human geography. Today Digitalisation and ICT are extensively used in the service sector followed by the industry and agriculture sectors of the economy.

Agriculture being an unorganised activity is practiced mostly by rural households. Lack of literacy and poor digital infrastructure are the major challenges associated with the rural area. Digitalisation can transform the process by making it more convenient. Implementation of ICT in agriculture helps in imparting education and training to rural farmers, market access, and transparency in market operations, thus it expands the rural market.

The process of Digitalisation started in the year 2015, when the Hon'ble Prime Minister of India launched the program *Digital India* with the mission of *Power to Empower.* The objective of Digitalisation is to empower the citizens digitally. Agriculture 4.0 refers to smart farming by using modern technologies like Artificial intelligence, Robotics, Drones, and IoT. For applying modern technology, the farmers have to be digitally literate and basic understanding of ICT tools. Therefore, the study attempts to evaluate the digital literacy level with ICT awareness among the farmers in Tumkuru district of Karnataka.

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2. Review of Literature

A review of literature involves referring to previous studies. It gives insights and expands the knowledge of researchers. The researchers reviewed various peer-reviewed journals some of them are as follows,

Goller *et al.* (2021), in their research titled "Digitalisation in agriculture: Knowledge and Learning", concluded that Digitalisation in agriculture has a positive impact on farmers. Farming became more flexible. It saves time and thus enables work-life balance due to a reduction in manual work. It requires farmers on permanently on duty and beware of the risk associated with the introduction of technology. It helps greatly the younger farmers who are not much aware of the traditional model.

Haque and Hoque (2021) conducted ex-post facto research on the utilization and effectiveness of ICT in agriculture by considering 250 sample respondents from the Thakurgaon District of Bangladesh. The author concluded that the majority of households utilized ICT in agriculture. The government should ensure high-speed internet and an uninterrupted power supply. He added that authorities should provide regular training to farmers to achieve effectiveness in ICT-enabled agriculture.

Purohit and Purohit (2021) discussed that the internet of things is an emerging technology being used in every field. digitalisation helps in the augmentation of traditional to modern ones. Internet of Things (IoT) based agriculture promotes production efficiency; enhances the quality of production, supply chain management, and quality control. Monitoring of climatic conditions, crop management, cattle monitoring, and end-to-end farm management systems can be achieved through smart farming. Rapid technological advancement and digitalisation led to a revolution in agriculture.

Upadhyay (2019) found that digitalisation transformation enables multi-dimensional holistic development in agriculture. The usage of ICT in agriculture helps the farmers to make decisions based on climatic conditions, soil conditions, and marketing modes. High and sustainable growth can be achieved through Digitalisation. It reduces cost and ensures a good return. The farmers need the motivation to adopt cost-effective and environmentally friendly technology.

Anitei *et al.* (2021) In this study, the researchers have discussed the significance of agriculture in society, particularly in light of the recent pandemic, which has underscored its importance. This study highlights the potential for accelerated digitalization in the agricultural sector. As the world emerges from the pandemic, the abstract suggests that countries will likely reassess their priorities and allocate investments accordingly, with agriculture becoming a key focus. To gain insights into the challenges and needs of farmers in the context of digitalization, the abstract mentions the use of a questionnaire-based research approach. The researchers have collected data from both experienced Romanian farmers and business experts in agriculture.

2.1 Research Gap

After an extensive review of numerous research articles, the researchers identified a noticeable gap in the existing literature pertaining to the impact of digitalization and ICT on the modernization of agriculture. In other words, there has been limited research conducted on how these technologies are influencing and contributing to the modernization of agricultural practices.

2.2 Objectives of the Study

1. To understand initiatives of e-governance in agriculture.
2. To know the ICT awareness among rural farmers
3. To identify the challenges involved in the modernization of agriculture.

2.3 Scope of the Study

The research was conducted with the aim of assessing the government's e-governance initiative and evaluating the level of ICT awareness among rural farmers. The study specifically focused on the population of farmers in the Tumakuru district. Consequently, it does not encompass farmers from regions outside the Tumakuru district.

3. Research Methodology

The study is descriptive in nature. The study is based on both primary and secondary data. The primary data was collected by distributing questionnaires to the farmers. 50 samples were selected for the study by using the Simple Random sampling technique. Data was gathered from

a group of farmers chosen at random from the APMC yard situated in Batawadi, Tumakuru. The secondary data was obtained through referring journals, magazines, newspapers, and government publications.

4. Government Initiative towards e-Governance in Agriculture

i. Digital India

The Honorable Prime minister of India introduced the Digital India program on July 1st, 2015 focusing on three areas namely:

1. Providing digital infrastructure as a source of utility to every citizen.
2. Governance and service on demand.
3. To look after the digital empowerment of every citizen.

Agriculture is the largest sector in terms of population engagement digital India cannot be fulfilled without the digital inclusion of farmers. Therefore, the Union Government introduced various digital education initiatives for the well-being of the farmers. A few initiatives are in order.

ii. Soil Health Card Scheme

The Department of Agriculture and Cooperation implemented Soil Health Card Scheme in 2015. Under this scheme, the soil sample of individual farmers' will be tested in laboratory to test the quality of the soil. The experts will test the nutrition level in the particular soil. Based on the result, the authority will issue a soiled card that contains the recommended fertilizers and nutrients for the individual farmland. This scheme will ensure the balanced use of fertilizers and helps to achieve sustainability in agriculture.

iii. National Agriculture Market (e-NAM)

Ministry of Agriculture introduced e-NAM an online unified national trading platform for agricultural commodities. It brought the sellers, traders and buyers together and facilitates all of them to discover the best price. Through the app, the farmers can see the progress of their lot being traded on a real-time basis. Transactions taken place through the e-NAM mobile app and payment will be done through NEFT, RTGS, Debit card, Internet banking, and UPI mode. The state can enact law and add a provision to the APMC act to promote e-NAM.

iv. Bhoomi Online

Bhoomi online, the digital initiative, is jointly implemented by the Government of Karnataka and the Union Government. The National Informatics Centre is responsible for the implementation and development of the project. It enables the Digitalisation of land records and creates a software mechanism to control the land registry. Under this project, the government hires 12th pass youths. They visit households directly and collect and verify land details digitally.

v. National e-Governance Plan in Agriculture (GPA)

NeGAPA was introduced in 2010 with a vision of rapid development through timely access to agricultural data for the farmers. Under the scheme, funds are released for the establishment of digital infrastructures like computer training labs, and the installation of hardware and software systems. It envisages the use of Information and Communication Technology to augment existing delivery channels provided by the departments and their agencies.

vi. M-Kisan Portal

M- Kisan portal was launched by the Hon'ble President of India on 16th July 2013. This portal was dedicated to sending messages/services/ advisory to farmers from the various departments and agencies for agriculture and the allied sector.

vii. Crop Survey App

The government of Karnataka launched Crop Survey to have clear data about crops sown and the type of irrigation adopted across the state. Through the mobile app, the farmers have to capture crops sown on their land along with photos and submit the same. These single, verified sources of data can be utilized by various departments in connection with agriculture including banks and insurance agencies.

viii. Meghdoot App

Meghadoot is a joint initiative of the India Meteorological Department (IMD), the Indian Institute of Tropical Meteorology (IITM), and the Indian Council of Agriculture Research (ICAR) to provide critical information simply and easily. It seamlessly aggregates

contextualised district and crop-wise advisories and it forecast weather information every Tuesday and Friday.

ix. Kisan Suvidha

Kisan Suvidha app was developed by the Department of Agriculture, Cooperation and Farmers Welfare in collaboration with the Mobile Seva Team. It gives information on Weather, Market prices, Farm input dealers, Pest and Crop Diseases identification and management, and Advisories sent by experts at district/ blocks.

x. e-Sahamathi

e-Sahamathi is an electronic platform introduced by Government of Karnataka which enables farmers to sell their products directly to the retailers by surpassing conventional APMC Mandis. e-Sahamathi allows the farmers to share their data with retailers and helps in discovering the best suitable price for their products.

xi. Kisan Rath

Kisan Rath app has been developed by the National Informatics Center (NIC); it enables farmers and traders across the country to transport the farm produce by establishing a connection with the transporter. Through the app, the farmers can post their order, then the transporter at another end can view the details of the order and communicate with the farmer for further operations.

xii. Crop Insurance App

The crop insurance app enables a farmer to calculate the premium of the insurance based on crop, area covered, and other factors.

xiii. AgriMarket Mobile App

This app was developed by Ministry of Agriculture to assist the farmers in selling their crops for the best price. The app uses GPS to discover the market within a 50-kilometer radius.

4.1 ICT Awareness among Farmers

Awareness of ICT tools among farmers perform basic requirement to up-gradation. In this context awareness implies basic know how of ICT tools. The researchers categorised the respondents on the basis of age group and studied the awareness of ICT among farmers of select district.

Table 1 depicts the awareness level of ICT gadgets among farmers by considering across the entire age stream. Here, the awareness represents basic know-how about the ICT tools. Among all ICT tools used to know awareness - TV and Mobile are emerged as the most popular devices to have a connection with farmers across the entire age stream. Majority of farmers (48) are aware of TV followed by Mobile (46), Radio (41) and Computer (06).

Communication models plays crucial role in dissimilation of information. In this study the awareness of communication models are categorized according to the age group of farmers. Table 2 represents the awareness level of communication models among farmers.

Table 2 represents the awareness level of communication models among the farmers according to the land holding pattern. Kisan Call Centre is emerged as the most popular communication model across every size of land holding

Table 1. Awareness of ICT Tools among the farmers

ICT Tools	Radio		Television		Mobile		Computer	
Age	Aware	Unaware	Aware	Unaware	Aware	Unaware	Aware	Unaware
<30	04	03	07	00	07	00	02	05
31-40	16	03	19	00	18	01	03	16
41-50	18	02	19	01	18	02	00	20
>51	03	01	03	01	03	01	01	03
Total	41	09	48	02	46	04	06	44

Source: Sample Survey

Table 2. Awareness of communication model among farmers

Parti-culars	Email		Video conference		e-NAM		Mobile app		Kisan Call center(KCC)		Agri-portal	
	Aware	Un-aware	Aware	Un-aware	Aware	Un-aware	Aware	Un-aware	Aware	Un-aware	Aware	Un-aware
<30	06	01	03	04	04	03	06	01	04	03	0	07
31-40	06	13	05	14	02	17	09	10	12	07	02	17
41-50	04	16	01	19	0	20	08	12	13	07	02	18
>50	01	03	0	04	0	04	03	01	02	02	0	04
Total	17	33	09	41	06	44	26	24	31	19	04	46

Source: Sample Survey

with 62 per cent awareness followed by a Mobile app of 50 per cent. The study shows that the majority of farmers are not aware of emerging e-trading platforms e-NAM, video conferencing, and agri-portals. Therefore, it can be said that farmers are still unaware of communication model other than KCC and Mobile apps.

4.2 Limiting Factors for the Modernization of Agriculture in India

The idea behind Digital India is to modernize India in every dimension. Since 2015 Government of India is aggressively planning to implement an ICT eco-system in agriculture to enable operations transparently with less cost. Despite these efforts, the farmers were not able to capitalize it properly because of various limiting factors. A few of them are discussed here;

i. Infrastructural Barrier

By the end of 2021, India has 47 per cent network coverage (Statista.com). Network issues presented in rural areas will become a major limiting factor for the implementation of ICT.

ii. Digital Illiteracy

The agriculture sector has the lowest level of digital literacy, which is 13 per cent (Ideas for India, 2021). The illiteracy discourages the digital inclusion initiatives of the government.

iii. Economic Barriers

According to a study, 20 per cent of Indian farmers are living in Below Poverty Line (BPL) (Mehta, 2019). The purchasing and maintenance of modern equipment require more investment that rural farmers cannot afford.

iv. Non-economies of Scale

In the Indian context, small farmers (<5 Acres) represent 85 per cent of the country's farmers (Sing, 2021). The fragile land holding discourages capital investment because of insufficient return.

v. Shifting of Trend

Nowadays, the youths are shifting from primary sector towards secondary and service sector as a result of culturable wasteland in is increasing. The outcome of Mapping Cycle published in 2019 as wasteland Atlas of India reveals that 17 per cent of Geographical area comes under wasteland (Pardikar, 2021) . It is a crucial challenge for the state to attract youths to agriculture

vi. Cultural Barriers

Indian farmers have an emotional touch with the traditional practices of agriculture; they are not easily adapted to the change. These cultural barriers may hinder the modernization of agriculture.

5. Discussions and Conclusion

Modernization of agriculture fosters rural development. This transformation ultimately leads to the economic and social betterment of society. In the Union Budget 2022, the government planned to spend 1.24 lac crore (03 per cent) on agriculture with the view of providing digital and hi-tech services to the farmer. Apart from this, the government intends to launch the Public-

Private Partnership (PPP) model for the advancement of agriculture. So far, the government has launched an e-platform from the selection of inputs to the marketing of agricultural produce across the nation. The addressing of limiting factors would augment the modernization of agriculture.

5.1 Suggestions

The study offers the following suggestions,

1. Since TV and mobile are extensively used by the farmers, it would be more effective to broadcast various awareness program through these ICT tools.
2. The farmers are still dependent on the traditional Kisan Call Centre, the state should promote the usage of the advanced communication model by conducting an ICT awareness Campaign at the Panchayath level.
3. The state should extend subsidies toward purchasing modern tools, it will promote modernization.
4. The state should promote the consolidation of land holding by promoting traditional group farming methods.
5. Cultural waste land should be minimized through campaigns at grass root level with the association of educational institutions and local service organizations.

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Impact of COVID-19 Crisis on the UPI usage by Street Vendors in Bengaluru

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Abstract

COVID-19 – 'Ringmaster of the crisis', has brought in high tides, indicating massive fluctuations, in the world's business activities. Amongst them, the most affected were the street vendors. Small shops, street vending and petty trading activities form the essential core of informal economic sectors in developing nations. During the pandemic, UPI featuring with contactless, swift, and hassle-free payments, has contributed to financial inclusion digitally, which in turn has resulted in small street vendors adapting to the same. The researchers have collected primary data from 50 street vendors within Bengaluru through personal interviews, employing a well-structured schedule of questions, and the timeline of data collected is relevant to the first wave of COVID-19. Similarly, secondary data was collected from news articles, journals, previously published research papers and other survey statistics for the same timeline. The collected data was tested using Cronbach's alpha and t-test through Microsoft excel. The collective outcome of the study revealed that the impact of the pandemic demonstrated a dominant upward trend in UPI usage by small street vendors within Bengaluru.

Keywords: **Contactless Payments, COVID-19, Digital Payments, Ease of Payments, Financial Inclusion, Pandemic, Street Vendors, UPI**

JEL Classification Code: G20

1. Introduction

COVID-19, a deadly virus that shook the entire world and disturbed the peace and harmony of people has not only shattered families and took away many lives but also changed the way of life of those who survived. The Indian Government imposed several restrictions on the movement of people in public places and took key measures, such as physical distancing and the use of masks and sanitizers, to reduce the transmission of COVID-19 to protect public health. The first movement to curb COVID-19 was taken on 22nd March 2020, when Prime Minister Narendra Modi announced a one-day Janata Curfew across the country. It was followed by a nationwide lockdown on 24th March 2020. Bengaluru, a city that is renowned for providing business opportunities to people who migrate to the city, had then lost its glow, and appeared ghostly as city-dwellers and business persons stayed home during the pandemic. Only those businesses that proved to be the fittest, and most essential remained afloat and the residual such as transportation, education, trade, textile, fashion, stocks & commodities, and any sector other than medicine, healthcare, and food, experienced a sharp decline.

1.1 Impact of COVID-19 on Street Vendors

Street Vendors commonly refer to hawkers, pedlars, roadside businesses, and petty traders, who form the essential core of the informal self-employed economic sector in Bengaluru. Such activities have allowed individuals to generate income with minimized investments of financial capital and without requiring large quantities of human capital. The National Policy

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on Urban Street Vendors has defined a street vendor as *"An individual who offers products or services purchasable to the general public without having a permanent built-up structure but with a short-lived static structure or mobile stall (or head-load)"*. However, to recover from the crisis, many vendors started adapting new strategies by providing enhanced services like tele-booking of products, virtual payment facilities and home delivery of products. This era has greatly influenced contactless payments among street vendors, who profoundly adapted to UPI payments to enable such a contactless payment mechanism.

1.2 Increase in UPI Usage Post-Pandemic

UPI, introduced in 2016, is a system that unifies multiple bank accounts into a single mobile application by merging several banking features under one platform. It has been contributing to Financial Inclusion digitally since then. In recent times, it has been gaining acceptance among people in India, as it enabled contactless, swift and hassle-free payments. The popularity of UPI payments increased among street vendors post-pandemic, where the customers generally referred to Scan and Pay option of UPI, as Google Pay, PhonePe or Paytm in their common tongue. This study particularly focuses on the enhancement of UPI usage among small street vendors in Bengaluru.

2. Review of Literature

Achutamba and Hymavathi (2022), with the prime objective to highlight the changes that that overcome in Indian payment systems post the pandemic scenario, the researchers have studied the awareness, perception, and behaviour of the public towards change of traditional payment system into digital payment system. To work on the objective, data has been collected from 100 sample respondents using convenience sampling, through google forms. Furthermore, the collected has been analysed using Chi-square test, Paired t-test, and ANOVA to obtain the results. The key findings of the study suggest that the psychological beliefs of Indian citizens and its capability to spread through any physical means, have made the people to avoid cash transactions during the lockdown. Eventually, the shortfall of cash in hands have pushed the people to use digital payments as a safe and healthy way of payments. Thus, the study concludes that COVID-19 has brought a change in the payment methods in India, which has turned the tides towards digital payments.

Rani (2022), in her study, has examined the effect of COVID-19 on digital payments in India. The researcher has also examined the acceptance level of digital payments by the vendors over cash payments. This study has analysed the issues faced by users during digital payments and drawbacks which are considered for non-preference of digital payments. Samples for the study was chosen by using simple random sampling. Survey questionnaires were distributed to all 100 sample respondents through google forms. Overall findings of the study states that there is an inclination in the volume of usage of digital payments after the spread of corona virus. The study suggests that the contactless payment feature of digital payments was highly effective reaching the users quickly. The study also identifies that despite the benefits, issues relating to digital payments were either internet issues or absence of bank accounts.

Singhal and Gupta (2021) have ascertained the impact of COVID-19 on digital payment services at towns and villages of India. Based on the information and evidences available from various sources, the researchers have examined the impact of the pandemic on the digital payment usage in towns and villages of India. According to the study, the usage of digital payments was in existence and were used by businessmen and household post pandemic situation but results of the study conclude that there is an increase in the use of digital application in economy especially at towns and villages. COVID-19 has bought the sense of health and safety among the people, which drives them towards the usage of digital payments and avoid cash. The researchers have highlighted that the people in villages and towns carry their QR codes of their digital wallets in their businesses. Thus, the happening of COVID-19 has enhanced the use of digital money as well as understanding and knowledge about the services of digital payments.

Vijayarani and Selvam (2021) in their study, have opted multi-stage stratified random sampling method to collect data from 300 samples from six Town Panchayats in the Cuddalore district and found out that majority of the street vendors were men and had started the business by borrowing funds from various sources. After the outbreak of COVID-19, these vendors had to switch over to buying

goods from retailers instead of wholesalers, while the practice was otherwise before the pandemic. The vendors traded goods daily before the pandemic, while switched to trading only 2-3 days of the week after the pandemic attack. During the pre-COVID period, vendors focused on availing quality products, which was replaced with the availability of products in the post-COVID scenario.

Mate and Kapdi (2021) have conducted research on the importance of Digital Payments during the COVID-19 pandemic and tried to understand the consumer perception of its usage. Through the study, the authors concluded that there was an increase in the usage of e-commerce platforms for food and entertainment, which in turn led to the increased use of digital payments. Consumers felt that the digital payment options were safe and secure, easy to access from smartphones and also ensured preventive measures to combat the pandemic.

Chaudhari and Kumar (2021) have assessed the impact of COVID-19 outbreak on the volume of digital payments in India. The researchers have implemented comparative analysis approach wherein the volume and value involved in digital payment transactions in the FY 2019-20 and FY 2020-21 have been compared to evaluate the impact of outbreak of COVID-19 on the usage of digital payments in India. Data required for the same have been extracted from the NPCI portal and analysed for further results. Overall findings of the study determined that during the FY 2020-21, there was three per cent surge in the overall digital transactions and seven per cent decline in the ATM cash withdrawal compared to the FY 2019-20. Hence, the study proves that COVID-19 has positively impacted the digital payments in retail segment in India.

Unni (2020) gave insights about restructuring of the informal economy after the pandemic outbreak. The study categorised the informal sector into three categories, namely, wage and salaried workers, self-employed enterprises, and small-medium enterprises, and discussed about the revival of these categories by adapting four major inferences: Restructuring of the industry; Restoring the supply chain linkage; Bridging the digital divide; and addressing the wide issue of skill mismatch. The author concluded that all these aspects could be revived by allocating and re-allocating resources; improving the forward-backward linkage in supply chain by focusing on the clusters of the economy; ensuring financial inclusion of the informal sector by empowering them with various skills; and helping the right skill to find the right work, respectively.

Das *et al.,* (2020) have studied the impact of COVID-19 on payment transactions in India during the first wave. Researchers have used the data available from the NPCI and RBI portals to prove their hypothesis. In this study, the researchers have showcased the level of changes in different forms of payment transactions such as ATM cash withdrawal, debit and credit usage at POS, IMPS, BHIM-UPI transactions, NEFT and RTGS transactions during COVID-19 lockdown. The results of the study predicted that the economy could suffer in the FY21 and it also concluded that the positive effect of COVID-19 on digital transactions was revealed in the form of increased levels of BHIM-UPI usage.

3. Research Methodology

Population of the study are the street vendors residing and

Table 1. The list of statements and their short forms used in the study

Statements used in the questionnaire	Code
Digital payments were very popular before the pandemic.	DP 1
Acceptance of digital payments were very necessary during the pandemic	DP 2
Customers prefer to make digital payments rather than cash during the pandemic	DP 3
Distributors of commodities prefer digital payments over cash from business units.	DP 4
I experienced better volume of digital payments after pandemic.	DP 5
I prefer to accept digital payments over cash from the customers.	DP 6
During the pandemic, it would've been very difficult for my business to sustain without digital payment mode.	DP 7

Source: Authors' work

conducting their businesses in Bengaluru city. Sample for the study is 50 street vendors, and the sampling technique implemented is convenience sampling. The sources of data for this study include both primary and secondary data. Primary data was collected from 50 street vendors within Bengaluru through personal interviews by means of well-structured, close-ended schedule of questions. Furthermore, secondary data was collected from news articles, journals, previously published research papers and other survey statistics, that acts as a substantial base for the study.

3.1 Period of the Study

Data collected for this study is relevant to the timeline of first wave of COVID-19. Information produced in this study is based on the opinions, experiences and preferences of the respondents during the period of first wave of COVID-19.

3.2 Objectives of the Study

1. To study the impact of COVID-19 on street vendors in Bengaluru.
2. To understand the factors that influenced street vendors to use of digital payments.
3. To identify street vendors' preferred mode for accepting payments.

3.3 Hypotheses

H01: There was no significant increase in the usage of UPI Payments by street vendors after the COVID-19 crisis.

H1: There was a significant increase in the usage of UPI Payments by street vendors after the COVID-19 crisis.

H02: Street Vendors have not faced problems while using Digital Payments.

H2: Street Vendors have faced problems while using Digital Payments.

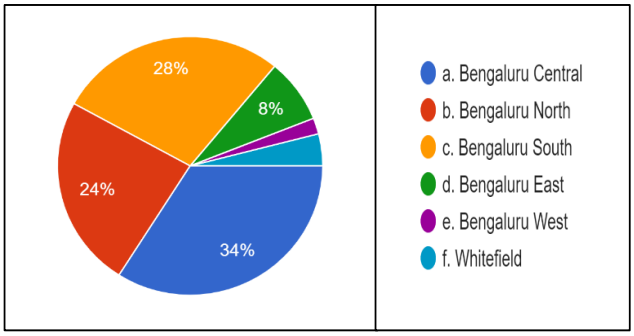
4. Data Analysis and Interpretation

Bengaluru, formerly called as ***Bangalore,*** was renamed as ***'Bengaluru'*** on November 1, 2014. On the account of '*Kannada Rajyotsava*' by then **Chief Minister -Siddaramaiah**, to mark the **59th Karnataka Rajyotsava's** celebrations. Along with Bengaluru, 11 o ther cities and towns were renamed similarly. This change was jointly proposed by JDS and BJP leaders on the suggestion of Late. **U. R. Ananthamurthy.** After eight long years, the Union Home Ministry approved the change as per the proposal submitted by the State. Bengaluru – Capital city of Karnataka, called as '*Rajadhani'* by Kannadigas, is a hub of IT Companies. It is famously known to be the Silicon city as it attracts the best domestic and international technology companies. Bengaluru has earned many more names, which adds more feathers to its cap. Bengaluru is the 5th most populous urban agglomeration in the country. The reason for such huge population is because of the business opportunities and job availabilities within the city. Also, the pleasant weather conditions and posh attire of the city attracts lot of people within the country.

Data for the analysis was collected from 50 respondents, i.e., small street vendors residing in 6 divisions of Bengaluru. Chart 1 depicts the respondent per centages as per their locality as follows: Bengaluru Central – 34 per cent, Bengaluru South – 28 per cent, Bengaluru North – 24 per cent, Bengaluru East – 8 per cent, Bengaluru West – 2 per cent, Whitefield – 4 per cent.

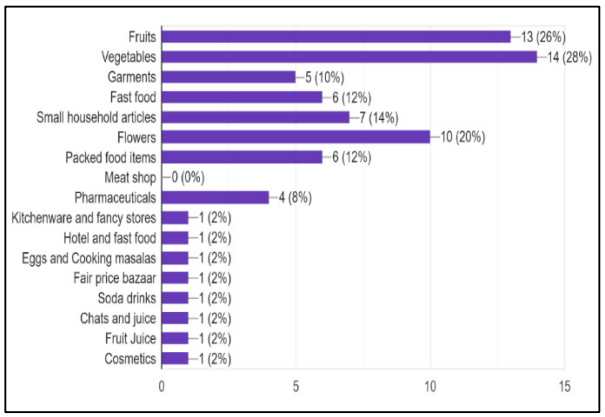
Chart 2 says that most of the respondents were indulged in businesses of fruits, vegetables, fast food, chats and juices, pharmaceuticals, garments, small house article and appliances. Among the respondents, vegetable vendors were the highest in participation with 14 number of respondents (28 per cent) followed by fruits vendors with a head count of 13 (26 per cent); followed by flower vendors summing up to 10 participants (20 per cent) respectively. Among the remaining 26 per cent of the respondents, five respondents (10 per cent) traded in garments' articles; six respondents (12 per cent) dealt with fast food; seven respondents (14 per cent) were found to deal with small

Chart 1. Zonal divisions of Bengaluru



Source: Authors' work

Chart 2. Street vendors' businesses



Source: Authors' work

household articles while six respondents (12 per cent) dealt with packed food items. Each of the remaining eight respondents dealt with pharmaceuticals, kitchenware and fancy stores, hotel and fast food, eggs and cooking ingredients, fair price bazaars, soda drinks stall, chats and juice, fruit juice centre, and cosmetics.

4.1 Objective 1 – To Study the Impact of Covid-19 on Street Vendors

Street vendors were the most affected, especially the food vendors who were dependent on the income generated through their daily business. '*Survey of Informal Sector*' from TOI group says that food vending is a household activity, and all those members involved in such activity, including their family dependents have been victims of loss of livelihood (Guha, 2020).

Livelihood of all street vendors, including those selling essential goods was very harsh during the lockdown, as their only source of income had been shut down. After a few weeks of containment, the government eased the restrictions, and only those vendors dealing with essential goods were permitted to carry on their business, which was subject to timings. However, the vendors had to spend more on transportation and supply of goods, which eventually raised the cost of business and risks. Eventually, many vendors in Delhi had lost their earnings to survive during the extended lockdown (Majithia, 2020).

The arrival of COVID-19 aggravated the problems of street vendors during the nationwide lockdown. Most of the street vendors had lost their earnings and savings for their survival without practising their livelihoods. But, given the face pace of infections and no medical safeguard in place, the street vendors are forced to assume normalcy and earn their bread by putting their health at risk (Maniktala & Jain, 2020).

4.2 Objective 2 – To Understand the Factors that Influenced Street Vendors to use Digital Payments

The researchers had framed a questionnaire using *five-point Likert* scale technique to test the factors that influenced street vendors to accept digital payments. The obtained data was tested using Cronbach's alpha to arrive at results, which in return found out that the Cronbach's alpha value for the obtained data is as much as 0.961083.

Table 2. Factors influencing street vendors to use digital payments

Particulars	1	2	3	4	5	Total
Ease of handling	18	11	6	5	10	50
No risk of physical contact	0	0	15	16	19	50
No issues of change/balance	1	3	29	1	16	50
Less time consuming	12	19	4	4	11	50
Physical evidence of payments	9	20	3	2	16	50
Real time settlements	11	16	4	4	15	50
No risk of being cheated	16	15	10	4	5	50
Payment from anywhere/anytime	13	15	4	4	14	50

Source: Authors' work

Table 3. ANOVA two-factor without replication

Source of Variation	SS	df	(Mean square)MS	F	P-value	F crit
Rows	604.7525	49	12.34189	25.69549	7.23E-88	1.391561
Columns	113.3775	7	16.19679	33.72129	1.28E-35	2.036305
Error	164.7475	343	0.480313			
Total	882.8775	399				

Source: Authors' work

For the interpretation of Cronbach's alpha, the following table from ***George and Mallery (2003)*** *can be used as a rule of thumb:*

Here, the obtained alpha value is compared with ***GM table*** value, and thus, it can be inferred that the given factors have significantly influenced the street vendors' usage of digital payments features.

Cronbach's alpha = 1 - (MSE/MSR) = 0.961083

During the pandemic, restrictions were laid down regarding the physical distance to be maintained in all public places, which built a strong reason for avoiding cash transactions. Further, the feature of digital payments, which supported the absence of physical contact have influenced the consumers in using digital payments for all transactions which led them to prefer cashless payments. Since street vendors are those who do not have well-structured commercial outlets but are common traders running their businesses minimal infrastructure or small commercial spaces. Street vendors neither afford to nor have the facility to accept card payments and hence, the most affordable and easy way to adapt to digital payments technology was upgrading themselves to have a UPI QR code or a mobile number linked with digital payment technology. On one hand, the pandemic opened the gates to avoid physical contact, and on the other hand, digital payments were easy to install and simple to handle. Therefore, the street vendors have shifted their payment acceptance method to digital applications.

Table 4. GM table

Cronbach's Alpha	Interpretation
> 0.9	Excellent
> 0.8	Good
> 0.7	Acceptable
> 0.6	Questionable
> 0.5	Poor
< 0.5	Unacceptable

Source: Authors' work

4.3 Hypothesis 1

Null hypothesis - There was no significant increase in the usage of UPI Payments by street vendors after the COVID-19 crisis.

To detect the fluctuation in the level of usage of UPI support after COVID-19 pandemic, t-test for paired samples is used. With reference to the objective, multiple questions were posed to the respondents wherein the answer had to be in the form of five-point Likert scale. Data was collecetd from the respondents with respect to UPI usage before and after COVID-19 pandemic. The collected data was tested using paired sample t-test wherein the obtained **t-value** was -**3.4523,** and the t critical region for right tailed test was **1.6765.** Since the **t-value** -**3.4523** is lesser than the critical value **1.6765** and also the same lies within the acceptance region, we reject the null hypothesis and conclude that 'There is a significant increase in the UPI payaments by street vendors after COVID-19 crisis'.

Analysis of the primary data revealed that 98 per cent of the sample street vendors had experienced a better volume of digital payments after the nation was hit by the pandemic. Moreover, 80 per cent of the respondents agree that the sustenance of their businesses could have

Table 5. T-Test of paired two sample for means

Particulars	Variable 1	Variable 2
Mean	4.12	4.42
Variance	0.352653061	0.289387755
Observations	50	50
Pearson Correlation		0.413966332
Hypothesized Mean Difference		0
df		49
t Stat		-3.452378
P(T<=t) one-tail		0.000577
t Critical one-tail		1.676550
P(T<=t) two-tail		0.001154
t Critical two-tail		2.009575

Source: Authors' work

been difficult in the absence of digital payments. Thus, Table 5 determines that there is a significant increase in the usage of UPI by street vendors in Bengaluru after the pandemic.

4.4 Hypothesis 2

Null hypothesis – Street vendors have not faced problems while using digital payments

To verify if the street vendors found it difficult to handle UPI usage in their business, data was collected in the form of five-point Likert scale to identify the factors that troubled the users (Street vendors) and to analyse the level of latent variable (Problems faced), where one being the least and five being the highest.

For the interpretation of Cronbach's alpha, the following table from ***George and Mallery (2003)*** *can be used as a rule of thumb.*

Table 6. Challenges Faced by Street Vendors while using Digital Payments

Particulars	1	2	3	4	5	Total
Lack of technical knowledge	4	3	15	21	7	50
Technical issues	0	1	14	23	12	50
Delayed payments or no payments	1	1	14	22	12	50
Risk of double debit	8	19	11	10	2	50
Different status in the customer device	1	3	25	8	13	50
Cheating by fraudsters	0	2	12	24	12	50
Dependent on mobile notifications	7	19	5	3	16	50
Absence of smart phones	1	2	15	20	12	50

Source: Authors' work

Table 7. ANOVA two-factor without replication

Source of Variation	SS	Df	MS	F	P-value	F crit
Rows	177.4225	49	3.620867347	5.075066148	5.43374	1.39156
Columns	81.6575	7	11.66535714	16.35035296	1.39104	2.03630
Error	244.7175	343	0.713462099			
Total	503.7975	399				

Source: Authors' work

With reference to the obtained alpha value **of 0.80295823**, it is evident that the obtained value is greater than the *GM Table value* of **0.8** (*Table 4*). Hence, it is inferred that the said factors are influential in creating troubles in the digital platform for payments.

Also, it is noticed that the **F-value** is greater than the ***F-critical value,*** which indicates that the F-value lies within the acceptance region of the distribution in cases of both rows and columns, which proves the researchers' hypothesis to be true. Therefore, it is concluded that street vendors have faced problems while using digital payments.

4.5 Objective 3 – To Identify Street Vendors' Preferred Mode for Accepting Payments

Data was collected from the sample respondents, i.e., from street vendors in Bengaluru, with respect to their preference towards accepting and making payments. To understand this phase, a series of statements were drafted, and responses were collected accordingly from the respondents in the form of five-point Likert scale based on the level of agreement. The following table showcases the series of statements drafted and responses received for the same.

By comparing the table values obtained in Table 8 with the range values established in Table 9, **DP1** and **DP4** have an average value of **1.96** and **2.44** respectively, and thereby proving that these statements are to be disagreed or the statement cannot be accepted as mentioned. This indicates that according to the respondents, digital payments were not highly popular before the pandemic, and it indicates that disagree that the distributors of commodities preferred cash payments over digital payments prior to the pandemic scenario. Whereas **DP3, DP6** and **DP7** bears an average value of **4.18, 4.00** and **4.08,** respectively which signifies that the statements are

Table 8. The agreement level of respondents towards the researchers' statements

Statements	SA	A	N	DA	SDA	Total	WA	Result
DP1	1	3	9	17	20	50	**1.96**	Disagree
DP2	19	29	1	1	-	50	**4.32**	Strongly agree
DP3	14	32	3	1	-	50	**4.18**	Agree
DP4	2	13	5	15	15	50	**2.44**	Disagree
DP5	22	27	1	-	-	50	**4.42**	Strongly agree
DP6	20	22	-	4	4	50	**4.00**	Agree
DP7	15	25	9	1	-	50	**4.08**	Agree

Source: Authors' work

**Refer Table 3.1 for Statements*

Table 9. Range value of categories

Particulars	Interval	Range
SDA	0.8	1-1.8
DA	0.8	1.9-2.6
N	0.8	2.7-3.4
A	0.8	3.5-4.2
SA	0.8	4.3-5.0

Source: Authors' work

good enough to be accepted by the respondents. This suggests that the customers as well as vendors themselves preferred digital payments over cash payments during the pandemic, which might be due to health consciousness. It also indicates that the vendors agreed that the absence of digital payments could have made their sustenance even harder. Moreover, **DP2** and **DP5** indicate an average value of **4.32** and **4.42** respectively, which acts as solid evidence for a stronger agreement with their respective statements. Therefore, the overall analysis reveals that the preferred mode of accepting and making payments by the street vendors post-pandemic scenario was through or other digital platforms rather than cash transactions.

5. Discussion and Conclusion

1. The Official Portal of NPCI publishes that there was an increase of 42 per cent in the volume of digital payments (retail) in the year 2021 compared to the FY 2019-20. Also, the ATM cash withdrawal had gone down by 15 per cent during the same period (NPCI, 2020).
2. In a recent poll, conducted by the joint host KPMG and ET Edge for the participants from payments space, the results said that 81 per cent of respondents reported higher usage of digital payment methods than cash during the pandemic. Moreover, 8 per cent of the respondents have declared that they would prefer digital payments exclusively in every economic activity. This transformation from cash to digital mode is because of convenience, safety, security, and especially physical distancing (KPMG, 2020).
3. According to the study made by payment firm FIS, around 39 per cent of GenXers, 46 per cent of baby boomers, and 36 per cent of millennials are currently using online or mobile banking. The COVID-19 pandemic has driven the US consumers towards digital payments and mobile banking. According to this study, around 31 per cent of participants would prefer to use mobile payments and contactless payment methods instead of cash due to the COVID-19 pandemic (digipay.guru, 2020).
4. As per the new data by PayPoint, due to the fear of overhandling cash, consumers have switched to card payments over cash payments due to which card payments have witnessed 75 per cent surge during the COVID-19 pandemic. During the same period, ATM transactions had dropped by around 33.31 per cent due to customer's reluctance to handle cash. Card payments grew by 20.6 per cent in just one year whereas, the ATM transactions saw a dip by 4.1 period during the same period (digipay.guru, 2020).
5. COVID-19 has enhanced the people's knowledge about digital payments, which has also boosted the usage of digital payments. People have found it convenient and safe to make payments through digital applications rather than exchanging cash. There was also a spike in the usage of digital payments after demonetization, but the pandemic has pushed the people from towns and villages to use them in routine (Singhal & Gupta, 2021).
6. A report produced by the World Bank for the Global Partnership for Financial Inclusion (GPFI) for the Italian Presidency of the G20 provides the following information on the impact of COVID-19 on financial inclusion:

i. At least 38 countries have used digital payments to deliver COVID-19 relief (Global Partnership for Financial Inclusion [GPFI], 2021).
ii. Mobile money has grown twice as fast in early 2020 at 12.7 per cent by reaching 1.2 billion accounts despite the downfall in economic activity (GPFI, 2021).
iii. The global credit card giant Visa reported that more than 13 million users made their first ever online transaction in early 2020 (GPFI, 2021).
iv. At the pandemic's outset, Nigerian mobile money provider Paga reported that it doubled the number

of merchants in its network and witnessed a 200 per cent increase in quarterly users, while Orange, a mobile money service, saw worldwide merchant payments jump by a fifth, and PayPal cited a "tremendous surge" in business (GPFI, 2021).

v. E-commerce also grew rapidly at 27.6 per cent globally, especially in emerging markets – with the Latin America region leading the way with growth over 37 per cent (GPFI, 2021).

The findings of the study provide adequate evidence that UPI usage has become popular in the case of Street vendors like in any other case. The major drawback in the same is that most of the vendors were not aware of the technological upgrades. But time being, the usage has made them adjust to the circumstances and have. Also, when compared to the pre-pandemic scenario, street vendors who were not aware of digital payments have upgraded themselves with the digital payment facilities in the post-pandemic scenario. UPI usage has become significant for majority of the street vendors within Bengaluru city. In addition, the information disclosed in "'*Discussions*'" also reports the same review which provides as an additional proof to the hypotheses of researchers.

The study conducted by the researchers concludes that UPI has gained an overall prominence in the business world today. Bengaluru being the IT hub of the country demanded that not only customers, but even vendors need to adapt to advanced technology to sustain and grow in the competitive business environment. In addition, the influence of COVID-19 has greatly impacted the usage of UPI, as it required a contactless atmosphere to curb the pandemic and simultaneously carry out business activities. Not only the public and standard commercial units but also the local vendors, retailers, street vendors even peddlers have adjusted their businesses with the use of UPIs. Through this study, based on the information obtained from the respondents, it was found that customers preferred to pay through UPIs and digital wallets at the maximum, which in turn eventually shot up the UPI usage and dependency of street vendors to a dominant level.

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Upskilling Rural Women for Toy Making through Skill India Movement: With Special Reference to Channapatna Toy Making

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Abstract

Upskilling women by empowering them through Women Entrepreneurship. Women Entrepreneur is a person who accepts a challenging role to meet her personal needs and become economically independent. Many women have this quality, but they never got a platform to show their talents and hence, their real abilities are not revealed. Women in India are taking more responsibilities in bringing up children and maintaining a better home with love and affection. At the family level, the task of coordinating various activities in a more effective manner, without feeling the pinch of inconveniences, is being carried out by the women folk. This paper focuses on toy making through upskilling women entrepreneurs in India, especially in toy making industry with special reference to Channapatna toys. Women are equally competent in running businesses but lacks behind, in spite of the women empowerment movement in our country. There are social, cultural, and economic hurdles in the way of women entrepreneurship and the major problem is lack of entrepreneurial environment. In spite of their potential and talent, women are deprived of opportunities, information and education. Some of the major problems identified are women's family obligations, gender inequality, financial problems, low-risk-taking attitude and the male-female competition. The problems of women entrepreneurs can be eradicated by appropriate training, incentives, encouragement and motivation, social recognition of their entrepreneurial abilities, and family moral support. Women are also given proper training on the upliftment of the knowledge regarding the toy making.

Keywords: **Channapatna Toys, Upskilling, Women Empowerment, Women Entrepreneurship**

JEL Classification Code: J00

1. Introduction

Women were only allowed to serve in the conventional Indian family structure, men serve as executors of choices produced by male family members. The conventional configuration is changing in the modern day. The social fabric of Indian society was changing due to women's improved educated status and different desires for a better life. Forcing Indian women are attempting to alter their lifestyles in both urban and rural locations. Females who start their businesses, sometimes, take on challenging jobs in order to satisfy their desires and become financially independent. Entrepreneurial women are capable of enhancing both home and social life and have a strong desire to make a difference. The news is quite good. However, some regions of the country still do not see women as powerful. India, historically, had a male-dominated social structure. Most often via unpaid labours and expertise, women have a vital role in the management of family companies. Both the families who take this effort for granted and scholarly research undervalue its importance. Women coordinate numerous tasks at the household level in the most efficient way possible without experiencing any problems. Every country needs the contributions of female entrepreneurs. Men and women should participate in all activities

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equally, if there is a competition with developed nations. Although males perform well as entrepreneurs, women should also develop successfully. A woman entrepreneur does a variety of tasks, similar to men. They should think about alternatives for starting a new business, take risks, introduce radical concepts, plan, organize, and manage their operations, and show great leadership in all areas of their business. Women typically have to balance many duties, such as working and taking care of the home, and as a result, their stress levels unavoidably increase with time. Even though they enjoy performing two parts, it will be stressful for them to manage both roles at once. The Indian government defines women entrepreneurs as individuals who control and direct a business or project with at least a financial stake of 51% of the capital and who employ at least 51% women. Resources in terms of people, land, and money determine the nation's economic growth and development. India's economic development includes women's entrepreneurship. An economy can reach higher levels of growth either by getting a bigger amount of the factors of production or by technical innovation. Women's entrepreneurship has two distinct facets: the roles that women play in society and the place that women entrepreneurs occupy within that same society. Women face certain obstacles that has to be removed to access the same opportunities as men which include familial obligations. In addition, having property and executing contracts might be difficult for women in some countries. The status of women in society, as well as among independent women will improve as more women participate in the workforce. For a number of reasons, the contribution of female entrepreneurs to the nation's economic growth must be taken into account (Victoria and Nicholas, 2010).

Establishing a new business to take advantage of fresh prospects is referred to as entrepreneurship. Entrepreneurship is the fundamental component, and women are now successful in it because they possess traits that are advantageous to the growth of entrepreneurship. Women would be more suited to entrepreneurship than to traditional employment. Nowadays, more women than ever before are interested in entrepreneurship. The mental growth of the ladies has been enormous. There are several prospects for women due to the country's growing reliance on the service industry. In the past two decades, more and more Indian women have started their own businesses and changed the way that business is conducted. Recently, women have been more interested in starting their businesses. Due to their combined responsibilities as wage earners and homemakers, women in the entrepreneurial process encounter a variety of challenges. The majority of housewives in India desire to launch their businesses, but they confront several obstacles. Their dual function frustrates them. The government launched a number of programs to train women entrepreneurs. Training programs pique the attention of women and aid in developing their abilities as well as their social attitudes and levels of confidence.

1.1 Women Entrepreneurs

Women entrepreneurs are referred to as those who launch, assemble and run a company. According to the Indian government, women business owners are individuals who "own and control an enterprise with a minimum financial interest of 51% of the capital and give at least 51% of the employment generated in the enterprise to women." Female entrepreneurs launch their companies as a result aspects that promote women establishing independent jobs and standing on their feet, including both push and pull influences. To be able to make independent decisions about their lives and jobs is what motivates this urge. Women who are weighed down by household responsibilities and housework long for freedom. These traits influence the job choices made by female entrepreneurs who are looking for a challenge and want to attempt something new. Pull factors are employed to describe this situation. Women work in the economy under duress because they owe it to their families and are expected of them.

The toy manufacturing sector in Channapatna has not been in great shape. Nevertheless, it needs to be promoted and protected for a number of reasons. Its products have established a solid reputation on the national and international levels, so selling them should not be too challenging. A workforce with a high level of competence is not necessary. Unskilled and semi-skilled labourers will suffice. The sector encourages innovation as well. The items can be priced reasonably, which is crucial since it should appeal to a large client base, both current and future.

Channapatna, which is situated around 80 kms from Mysore and 60 kms from Bangalore, is also known as "Toy City or Gombegala Nadu", since it produces lacquerware

and wooden toys. The Channapatna toy business once produced exquisite toys out of ivory wood, but nowadays, they create them out of rose and sandalwood, a trade that has a long history in the town of Channapatna. When Tippu Sultan was the monarch of ancient Mysore, he encouraged and supported toy makers, and they began to produce toys during his reign. Since the craft of toy making is practiced in the toy city of Channapatna, Tippu Sultan summoned toy manufacturers from Persia to train the local Channapatna craftsmen. The Channapatna Craft Park on Channapatna town's Santoor Road is the specific location the government has designated for the Channapatna toy industry. The toy industry does not exist in this park, nor is there any opportunity for the sector to engage in export business to other nations. The government also offers the toymakers at Kalanagara, Channapatna town, with site facilities.

2. Literature Review

Panda, (2017) conducted research on "Women Empowerment in India: Rational and Present state." He has discovered that while women's empowerment may not be essential for our country, it is essential for the long-term growth of a country. So let's start empowering women right away for our future security. It is necessary to alter Indian society's mentality about women. The man ought to believe that justice and equality are becoming more prevalent in the globe. Therefore, empowering women will result in prosperity for the next generation.

Shettar (2015) conducted research on "A Study on Issues and Challenges of Women Empowerment in India" expressing the opinion that women's empowerment could only be attained if their social and economic condition improved. This could only be done by putting into place clear social and economic policies aimed at advancing women's entire development and teaching them about their resilience as people. A significant percentage of the population has seen some relief as a result of globalization, liberalization, and other socioeconomic influences. However, there are still a number of areas in which India's empowerment of women is seriously deficient.

Khatri (2016) has done research on "The Role of Education towards Women Empowerment in India", focusing on how education and literacy affect women's empowerment. She also makes improvements to the modifications that should be taken into account for women's empowerment and economic growth.

Suresh and Sivakumar (2007) in their work "Women Empowerment in India – A Changing Scenario" noticed that empowering women primarily involves raising their status, who historically have poor conditions in society in terms of economy, society, and politics. It means defending children from all forms of harm.

Subrahmanyam (2011) contrasts the education of women in India today and in the past. The author emphasized that there has been excellent development in the enrollment of girls in general. To empower implies to grant legitimate authority or power to act. It involves acquiring certain feminine behaviours.

According to Rao (2011), the health of the SHG's female members has unquestionably improved. It is evident that the health of the women in the group discusses issues relating to their health as well as the health of their children and other members, and they also inform them about the numerous government benefits designed especially for them.

Doepke (2011) – 'Does Women's Empowerment Encourage Economic Growth?', is an empirical investigation that contends that giving moms money helps their kids. To better understand the kind of frictions that could result in the observed empirical link, a range of non-cooperative family bargaining models were developed for this study.

The toy village of Channapatna located 60 kms away from Bangalore draws tourists with its vibrant and distinctively made wooden toys (Maya & Anisha (2020)). The invention of these toys, also known as Gombegala Nagara or "town of toys" in Kannada, is a result of Tipu Sultan period. Tipu invited the Persian artisans to his hamlet and requested that they instruct the native artisans in the method. Only wood is used in the construction of the toys. Vegetable dyes, which are fully innocuous and completely safe, are used to colour the toys.

According to Roshni (2019), the handicrafts industry cries out for government assistance since the livelihood of craftsmen across India is suffering as a result of low demand, insufficient marketing support, and middlemen's abuse. Nearly all of them have been destroyed by contemporary industry that originated in the West,

including wooden toys from Channapatna in Karnataka with strong carvings, the gorgeously weaved ikat from Odisha and Andhra Pradesh, and the geometrically designed Sholapith idols from West Bengal. There are more than 68 lakh craftsmen in the country according to the 2011 Census of which over half are women.

According to Dhanya and Samudhyata (2019), the Channapatna toymakers employ ivory wood, which grows profusely in arid regions. It only needs a small amount of input. It is a typical agroforestry plant that is cultivated in and around Channapatna town. For the people who live in the town and nearby villages, the toys created in Channapatna are much more than just toys, as Chithra (2017) points out. To a large portion of the population, they are the only thing standing between life and death. A geographical identification tag has been assigned to the practice of creating toys.

Rashid and Hassan's (2010) research identified the weak economy and a stereotypical culture as additional issues that might harm female entrepreneurs. The primary obstacles that impede women from starting their own enterprises include prejudice against women, a lack of social support, limited information availability, insufficient education and training programs, lack of funds as well as lack of confidence in one's talents. Themozhi has discussed the position of women and motivating variables in connection to socio-economic backdrop in her work, "A Study on Women Entrepreneurship in Coimbatore District." She has talked about how women succeed as entrepreneurs as well as the different barriers they face.

The majority of the women entrepreneurs who own beauty parlors are having financial difficulties, based on Chandra's research, "Women Entrepreneurs - A Study with Special Reference to Beauty Parlours in Virudhunagar District." Nisha Ashokan examined the financial stability and efficiency of businesses operated by women in her research, "Measuring the Performance of Enterprises run by Women Entrepreneurs in Chennai."

According to Ashwaq (2016), some toymakers carry on the tradition of producing lacquer toys even though many give up due to the fierce competition offered by Chinese toys. When their boys from Channapatna town realized they were not interested in conventional schooling, several parents made them take up toy making. After all, Channapatna town was known for classic lacquer toys, including rocking horses, dolls, and carts. It used to be a thriving business in the past. Around 5,000 people in the area were employed in toy manufacturing in 1987. There were a thousand lathes, and every toymaker was profitable. They first made drapes, napkin rings, and little toys like rattles. However, there weren't many of the designs. However, the order book dried up and toy exports stopped in the early 1990s. However, the sector returned to toy production in the late 1990s. The technique of creating toys is said to have come to Channapatna in the 18th when Tipu Sultan was given a Persian lacquered-wood toy in the 18th century. At that time, the Maharaja of Mysore was so enamored by the toy that he dispatched Persian artisans to instruct the natives. In the fiscal year 1996–1997, India exported toys worth INR 245 crore and imported toys for INR 52.88 crore. After 2006–2007, the country's imports of toys outpaced its exports of toys. The exports-imports ratio fell sharply from a stellar 4.63 in 1996-1997 to a dreadful 0.76 by 2007-2008.

3. Research Design

3.1 Objectives of the Study

1. To understand difficulties faced by female business owners while making and marketing Channapatna toys.
2. The government offers a number of programs and incentives to encourage women business owners to invest in rural entrepreneurship.
3. To recommend actions based on the findings of the research.

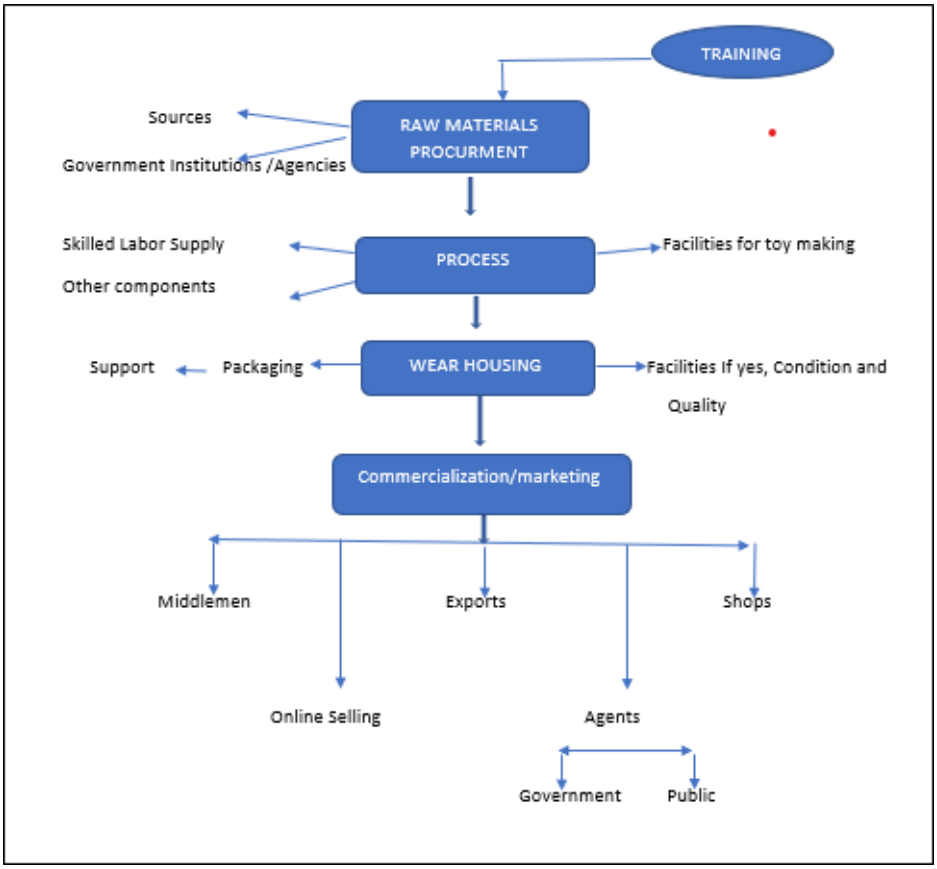
3.2 Research Methodology

Research methodology is solving the research problem systematically and scientifically. The main aim of the research is to gather information about toy making and the female business owners in Channapatna.

The study is purely based on observation. It is also based on the unstructured interview schedule and also based on literature reviews.

4. Analysis

Figure 1 explains the process followed in Channapatna toy making industry. First, training is given to women who are working in the industry, collection of raw materials



Source: Authors' work

Figure 1. Model of the study.

like different types of woods, and making organic colours from fruits and vegetables, which are used by some of the toy making industries. The raw materials can be procured from different sources of lenders, through the government or the agents, depending on the material and the industry. After the procurement of raw materials, cutting, shaping and colouring of the toys takes place with the help of skilled labours or other components like machinery. The finished toys are moved to warehouses that are set up within the industry or through Government support providing warehousing facilities. Packing is done according to the size, shape, design and the quality of the product used to manufacture the toys. The selling of these toys are carried out directly through the middlemen who visit and purchase from the factory and then reach the customers for a good price. Another way is by selling online. Online shopping facilities help customers anywhere to choose the products and reach them in less time. There is a great demand for the Channapatna toys in the world. According to the quality of products, it is been exported. There is a huge demand for the organic coloured toys as they are safe for children. The exporting is carried out through agents like the government agent or a private agent, according to the toy makers. Finally, the manufacturer can start up his outlets to sell the finished products directly to the happy customers.

4. Challenges Faced by the Women Entrepreneurs

Entrepreneurship was previously seen as the domain of males, but every year more and more women embark on the path of founding and managing their businesses. These knowledgeable business women encourage other women to launch enterprises, yet many female business owners still encounter major barriers due to their gender. Female CEOs discussed some of the main obstacles that female business owners now face in the Channapatna toy manufacturing industry, as well as solutions for these issues.

1. **Women business owners believe they must behave like men:** Majority of female entrepreneurs engage in networking. It may be relevant to events or circumstances. For female company owners, talking shop with predominantly male CEOs may be daunting. Women frequently believe they must adopt a stereotypically masculine mentality toward business in the toy manufacturing sector in order to compensate and protect themselves.

2. **Emotions and maternal qualities can have an impact on women's companies:** A female entrepreneur's success is not guaranteed by attempting to act like a man, but it also isn't necessarily advised to let her feminine traits get in the way of getting things done. Women tend to be more loving and sensitive which can occasionally make it difficult to operate a toy manufacturing company.

3. **Women frequently the absence of support from other female business executives:** Diverse female business leaders yearned for greater support and companionship from female colleagues in their disciplines in the carving and producing the wooden toys because they felt uneasy about being a minority of successful female scientists and mathematicians.

4. **Many women must juggle operating their businesses and raising kids:** While many entrepreneurs strive for work-life balance, moms who start enterprises must manage both their family and their toy manufacturing firms at the same time.

5. **Women business owners fear failing:** Global Entrepreneur Monitor claims that women entrepreneurs are more fearful of failure. Failure is a very real risk in every company initiative, but it shouldn't be seen as a bad thing. It also affects the toy industry, which is sometimes limited in its marketing prospects because it is both a conventional industry and an MSME sector.

6. **Links to family:** The emotional depth of Indian women connected to their households. They are required to take care of household duties, as well as their kids and other family members. They spend most of their time and energy on family chores including caring their husband, kids, and in-laws in addition. It will be quite tough to focus on the toy manufacturing sector and successfully operate the business in such a condition.

7. **Male-dominated culture:** Existing male chauvinism rules the day, notwithstanding the constitution's mention of gender equality. Women are not given the same rights as males. The family patriarch must provide his or her consent before they may start a business. Entrepreneurship has always been associated with men. All of them hinder the development of female entrepreneurs, particularly with regard to the toy manufacturing sector.

8. **Inadequate education:** Majority of Indian females still lag greatly in terms of education. About 60% of women are illiterate. Because of early marriage, sons' better education, and poverty, those who are educated receive either less or inadequate education than their male counterparts. Due to lack of proper training in toy manufacturing, including the choice of wood, cutting and carving techniques, and colour schemes to be used, female business owners are unaware of advancements in technology, production techniques, marketing, and other governmental initiatives that help them to succeed.

9. **Self-Confidence:** Indian women are unconfident in their physical abilities and cognitive capacity. Family members and society as a whole are hesitant to support their organizational development. This scenario is changing somewhat for Indian women, but there is still more that needs to be done to increase the rate at which entrepreneurship is growing. Since we now have extremely excellent access to everything, the desire for toys may be decreasing, thus we need to raise awareness of them.

10. **Barriers that are social and cultural:** Personal and familial responsibilities may on sometimes serve as a significant obstacle to women entrepreneurs' success in the corporate world. Only a small percentage of women are able to successfully manage their homes and businesses while still

finding the time to prioritize manufacturing toys as one of their top priorities.

11. **Market-Related risks:** Women are dependent on intermediaries because of the severe competition in the market and their limited mobility. Gaining market share and having their goods recognized and enjoyed by consumers may be quite a challenge for businesswomen. Since They can't completely understand the realities of the shifting market environment since they effectively exploit media outlets and internet services.

12. **Limits on movement:** Because of the persistent rigidity of the society in India, women's movement is severely constrained, and as a result, their professional options are confined within the four walls of the kitchen. Even while women often experienced mobility issues when conducting businesses, this problem has considerably decreased the spread of educational understanding.

13. **Knowledge of business administration:** For women to develop the knowledge and abilities in business enterprise functional areas, education and training must be provided continually. This will inspire women to exercise sound judgment and build up their business abilities.

14. **Financial support:** Most women, especially those who reside in remote regions, are unaware of the financial aid offered by numerous organizations. Company owners in remote and undeveloped areas might not be able to benefit for their hard works.

15. **Training initiatives**: Depending upon demands, duration, intensity and competence, the social and welfare association provides many services like seminars and instruction programs to help entrepreneurs achieve their objectives. Young and upcoming entrepreneurs who want to launch their small- to medium-sized businesses may tremendously benefit from such initiatives.

16. **Cost:** Some companies have high performance and production expenses, which restrict the rise of female business owners. The acquisition of new equipment during the expansion in production, potential and related circumstances deter female company owners from growing their enterprises.

5. Discussion and Conclusion

Based on the earlier studies, business women have a number of difficulties in the areas of family, money, marketing, and health. The law offered women equal rights and opportunities in the workplace and school after independence. Along with financial assistance and government initiatives, the key drivers for women who want to succeed as business entrepreneurs should also enlist the psychological assistance of their partners and families. Despite, without the emotional support of their loved ones and government funding, women may not be successful business entrepreneurs. Everything in business centers on gains, failures, and disputes. Someone should always offer support to avoid problems. Increasing levels of self-assurance, self-esteem, and self-motivation have led to an increase in expectations for women entrepreneurs in recent years. As people become educated, it will be simpler for women to succeed in the future.

If the craft industry is bought under employment regulations, it may have the potential to create entrepreneurs and jobs. To reach all levels of markets that are only absorbed on the domestic market, new marketing tactics must be expanded. Effective implementation of different government marketing and service programs should be provided to craftsmen. It should be considered granting uncompensated advantages to artists from less developed nations. Knowledge adaptation should be given to boost the handicraft industry's competitiveness in the international market. Due to their dependence on domestic clients, they have little opportunity to comprehend the varied needs of various clients.

The production of wooden goods on a modest scale was discovered to be a symbol of tradition and history. Many educated people help their family members run their livelihoods by creating and giving to others. Many expert craftsmen and artisans are dealing with serious health issues like sharp pain, back discomfort, dust allergies, and respiratory diseases as a result of their ritualistic manufacturing methods. As shown, the government would benefit most of the women engaged in this activity through programs for women's empowerment and women entrepreneurs by lowering taxes, increasing subsidies, and

offering low- or no-interest financing options. By providing them with precise market knowledge and vocational and professional training, may help them better integrate into society and adapt their goods to the needs of the market. In international marketing and export operations, the government plays a crucial role. In order to preserve the traditions and heritage of a particular region and religion, it is imperative that the development of rural craftsmen and the handicrafts industry be observed with great sobriety. Due to the sector's importance to aesthetics, global trade might experience significant changes.

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AI and Machine Learning in Fintech Companies

S. Vijayalakshmi

Abstract

The vast amount of data technology in organizations causes the need to understand the factors of how to use this data and for understanding. To make the most of the company's data there is a need to be an awareness of the latest trends and technology in the business analytics space. These predictions will help organizations prepare for the future of business analytics and stay agile. Technology disruption and dramatic shifts in consumer banking lay the basis for new banking S- curve business models, Further COVID-19 pandemic has accelerated these trends. This paper examines the Applications of Artificial Intelligence and Machine Learning, which are two related technologies that are playing a paramount role in Fintech companies in the present-day scenario. This paper explores the operational efficiency of Artificial Intelligence and Machine Learning capabilities and their future opportunities in Fintech Services. The present study adopts a conceptual Model. The study attempts to discover patterns in the usage and effectiveness of Artificial Intelligence and Machine Learning capabilities in FinTech Companies. The major implication of the research is fraud detection where data and machine learning an analytical solution can be embedded in the operational process and automatically isolate or minimize financial fraud. Artificial Intelligence and Machine learning help FinTech companies to detect sub spinous incidents instantaneously and expedite the time to respond. In addition, the applications of Artificial Intelligence and Machine Learning lead to operational efficiency in Fintech companies.

Keywords: **Artificial Intelligence, FinTech Companies, Fraud Detection, Machine Learning, Operational Efficiency**

JEL Classification Code: O30

1. Introduction

Artificial Intelligence originated from the 1955 Dartmouse Summer Research Project Proposal. (McCarthy *et al.*, 2006). Artificial Intelligence and Machine Learning are often interchangeable inaddressing tasks requiring human sophistication.

AI is integrated into financial services by its ability to perform specific tasks subtly beyond humans especially handling unstructured raw data. The machine learning part of AI deals with the study and construction of techniques that learn automatically from data to solve data (Stojanovic *et al.*, 2021) Machine Learning is a data-driven subcategory of Artificial Intelligence, using statistical tools to analyze historical data and predict patterns, accelerating business changes in Fintech Companies.

AI has the potential to automate tasks, engage with ustomers, generate insights, make decisions,and support invocation in Fintech companies. AI's uniqueness is it essentially identifies the actionable objectives to realize its worth. (Hamm & Klesel, 2021). AI enhances fintech supervision, customer service, and business experiences. (Geddes & Schmidt, 2020). AI/ML systems in the financial sector forecast macroeconomic variables, meet customer demands, provide capacity and monitor business conditions, offering flexibility and outperforming linear regression-based methods in forecast accuracy and robustness. (Bolhuis and Rayner 2020). AI advances across various fields including finance, Marketing and Finance, impacting various industries.

2. Methodology

This paper is descriptive and conceptual. A conceptual framework linking up AI/ML capabilities like fraud

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detection, credit scoring algorithmic trading constructs with independent variable operational efficiency is shown in Figure 1, where the improved operational efficiency of fintech companies elevates the business results in terms of Companies revenues.

2.1 Research Gap

The raw data used in AI/ML applications may not yield conclusive evidence. Moreover, in the literature review it is evident that most of the research was on the advantages and applications of AI/ML in fintech companies in general. There are very few studies on operational efficiency derived from AI/ML capabilities leading to business benefits. Future directions of some research papers also have given avenues for carrying out research on AI/ML capabilities, which emerges with new business benefits.

2.2 Problem Statement

AI/ML adoption in Fintech Companies presents risks and challenges, including potential bias, cyber-addressed risks, privacy concerns and structural shifts. Data privacy and cybersecurity are crucial, as AI/ML algorithms may uncover unknown correlations in data sets, making it essential to ensure financial stability.

3. Objectives of the Study

1. To examine the application of AI/ML in Fintech Companies.
2. To identify AI/ML capabilities leading to operational efficiency in Fintech Companies.
3. To develop a conceptual model that provides a linkage between AI/ML capabilities andoperational efficiency.

4. Discussions and Implications of Application of AI and Machine Learning in FintechCompanies

Implementation of AI/ML in Fintech companies brings many benefits. It leads to faster response and enhanced customer satisfaction. (mtransfersHQ, 2018)

AI/ML capabilities enhance operational efficiency by automating repetitive tasks, streamlining processes, and providing insights that can help optimize business operations. FinTech Companies must ensure proper measures to make sure privacy, accuracy and compliance and most importantfocus on customer experience. The following points are discussed below:

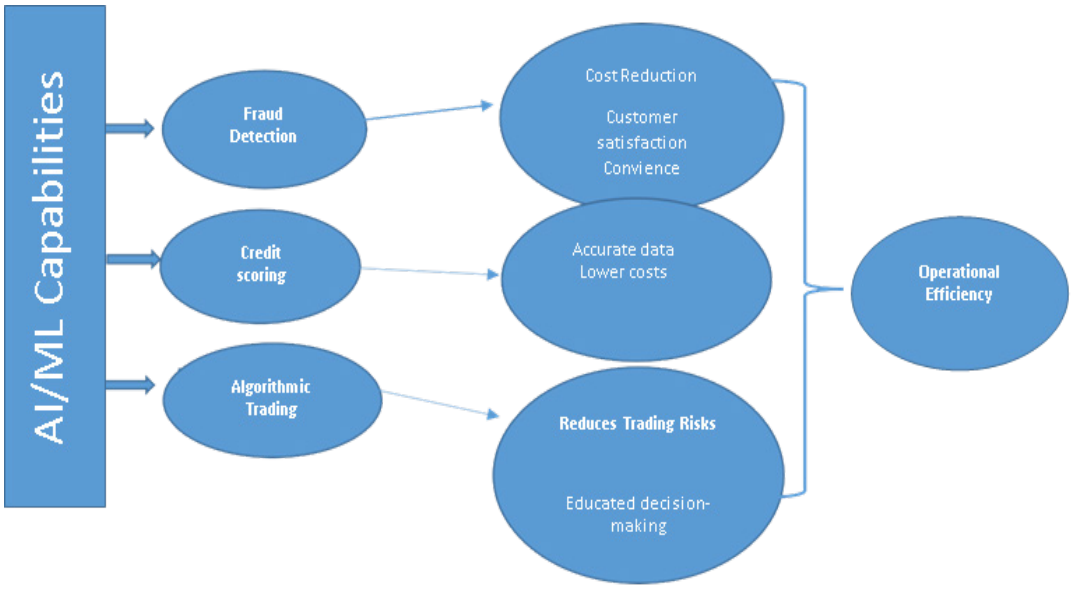


Figure 1. Artificial Intelligence and machine learning capabilities and operational efficiency conceptual model.
Source: Author

Fraud Detection

AI/ML's excellent computational capacity helps with fraud detection, interpreting large sets of data, which provides better insights into customer preferences, behaviour and fraud trends. AI/ML models analyse large datasets to understand customer preferences, behaviour, and fraud trends, ensuring 24/7 response and automatic transaction rejection. (Malaji & Gopalakrishnan, 2020) Advanced technologies enable efficient detection of complex fraudulent events, enhancing digital performance in e-commerce and banking sectors. Fraud examiners like KPMG, ACFE, and PWC show that AI-based technologies can detect fraud early.

Credit Scoring

Machine Learning algorithms develop credit-scoring models using historical data to predict default likelihood and assess new borrowers' creditworthiness. (Qin *et al.*, 2021). Machine learning can be applied in credit scoring assessing, a customer's ability to pay and debt repayment likelihood. It uses dimensions like work experience, income, transaction analysis and credit history to generate accurate, sensitive and tailored assessments. Combining AI and ML, improves enterprise identity, accelerates KYC, prompts credit scores manages risk, and reduces costs.

Desai *et al.* (1996), this study investigates the effectiveness of neural networks linear discriminant analysis, and logistic regression in evaluating credit scores for small loans, revealing promising avenues for identifying bad loans.

Cost Reduction

AI/ML capabilities can be a powerful tool in reducing costs and improving operational efficiency in Fintech. These technologies help fintech companies to achieve significant cost savings and enhance customer experience and business outcomes. Machine Learning algorithms offer analytical capabilities and significantly reduce time-consuming tasks. They offer an affordable way to process data in real-time and find patterns for making decisions. AI in Fintech streamlines business processes reduces operational costs, increases accuracy and enables employees to focus on strategic tasks. (Tatsat *et al.*, 2020) Asset wealth management organizations are exploring AI technologies for better investment decisions and historical data utilization, including robo-advisors and automated financial advice.

Customer Satisfaction

Fintech companies enhance operational efficiency and customer satisfaction using AI/ML. By providing personalized experiences and deriving fast and accurate services, these technologies can help fintech companies provide a better customer experience. AI/ML chatbots and virtual assistants enhance customer experience by providing 24/7 support, reducing wait times and offering personalized recommendations for financial products and services. (Blackrock, 2019) Technology continues to impact asset management, with AI and ML applications improving efficiency, accuracy, performance, profits, and customer satisfaction.

Convenience

AI/ML capabilities can be used in fintech to improve convenience for customers. By providing fast and easy access to financial products and services, automating tasks and delivering personalized experiences these technologies can help fintech companies provide a more convenient and seamless customer experience. These technologies can help fintech companies provide a more convenient, seamless customer experience like AI/ML powered mobile banking apps, process automation repetitive tasks such as data entry, reconciliation and reporting reducingthe time to complete these tasks, and voice-activated banking (Konigstorfer & Thalmann, 2020). Banks and Financial institutions are utilizing AI chatbots to enhance the experience, eliminating personnel and allowing mobile banking apps for account creation, transfers, and bill payments.

Accurate Data

AI revolutionizes trading by analyzing real-time data and providing insights beyond static models.Consumers can trade stocks and shares using user-friendly mobile apps and AI-powered Fintech decision-making apps. Algorithmic trading AI/ML capabilities improve operational efficientcy automate receptive tasks and optimize business operations.

The major findings are FinTech provides techniques and processes to develop the financial sector. However, with the integration of cutting-edge technologies like AI and

machine learning the operating effectiveness is enhanced in FinTech (IMF Report). AI/ML deployment in fintech companies boosts efficiency, reduces costs, and improves customer-demanded financial services products.

5. Discussion and Conclusion

AI/ML-related technologies are reshaping the financial landscape. These cutting-edge technologies are increasing financial Deeping increasing the operational efficiency of FinTech companies. Innovative AI/ML capabilities enable product customization, improved client interface (chatbots), and cost reduction through automated processes. Fintech companies pioneered AI/MLinnovation for budget awareness and human development. AI/ML collaboration in fintech companies is crucial for business success, requiring human-intelligent algorithms and machine learning. This research focuses on developing a conceptual model aligning AI/ML capability with operational efficiency. Empirical research can be conducted using this conceptual model.

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Contribution of Tourism Sector to State's GSDP with Special Reference to South Indian States - A Comparative Study

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Abstract

India is known for diversity in every aspect. The physical geography of the nation has to endeavour in tourism. For developing countries such as India, tourism has been a boon in employment creation and revenue generation. In this particular research paper, the researchers have compared the contribution of tourism to State Gross Domestic product among southern Indian states. The study was based on secondary data. The study found that the tourism sector has been consistently contributing around 6 per cent to the total GSDP of each state. Out of these, Karnataka topped in terms of revenue generation, and Tamil Nadu topped in terms of foreign and domestic visits.

Keywords: **Gross State Domestic Product, MoSPI, Revenue Generation, Southern States, Territory Sector, Tourism**

JEL Classification Code: Z30, Z32

1. Introduction

Tourism is an important sector for the economic development of any country. The economies of developing nations are heavily reliant on tourism. Despite significant setbacks in the past that hampered the expansion of the tourism sector, it quickly recovered. Previous roadblocks to tourist growth and how the industry rose from the ashes like a phoenix indicate that it will rapidly recover. Recovery from COVID-19 is also no exception, according to UNWTO, with around 250 million foreign arrivals reported in the first five months of 2022, the sector has recovered over half (46%) of its pre-pandemic 2019 levels (UNWTO, 2022). Although the recovery from tourism was not at the same level as it was in 2019, Table 1 demonstrates that there has been a big improvement, and

Table 1. Tourist arrivals of tourist in millions

Regions Classification as per UNWTO	2019	2020	2021
World	1465	406	429
Europe	745.2	238.1	288.4
Asia and the pacific	359.6	59.2	20.6
Americas	219.3	69.8	82.4
Africa	68.1	18.8	19.4
Middle East	73.0	19.8	18.6

Source: UNWTO Tourism Barometer (UNWTO, 2022)

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now, in 2022, it is recovering more quickly. Recovery is lower in Asia and the Pacific region, which may be due to Omicron fear in Asian countries.

Given its significant economic contribution to the nation, tourism is one of the major industries in India. But It's interesting to see how India's GDP and global ranking are impacted by tourism During Covid Pandemic. Because India's position improved from eighth in 2019 to sixth in 2021 in terms of its contribution to GDP from tourism, and it remained second in terms of its contribution to employment in both years. In terms of domestic visitor spending, India's position was fourth in 2021 compared to sixth in 2019, and in terms of foreigner spending, it fell to twentieth in 2021 from fifteenth in 2019 (UNWTO, 2022). It shows that as compared to other countries India's recovery is better and faster. According to the UNWTO's projection of India's position in 2032, the country will come in second place to China in terms of the number of employments generated by tourism (20.4% of all jobs worldwide), and third place to the United States and China in terms of GDP contribution (457.1 USD billion) (UNWTO, 2022). All this data and projections show that Tourism will play a key role in building three trillion economies.

2. Literature Review

The focus of the current study is on calculating and analysing the GDP contribution of tourism in relation to southern Indian states. These states provide a considerable economic contribution to the nation; therefore, it will be fascinating to see how each state performs in terms of its contribution from tourism.

Thommandru *et al.* (2021) discusses the impact of tourism on a Country's economy. Tourism is a summation of direct impact, indirect impact, and induced impact. A direct impact is directly related to tourist expenditure; an indirect effect is a multiplier effect due to the forward and backward connection of tourism, and an induced impact is sales, revenue, or employment generated as a result of tourist spending. Here researcher also throws light on the point that countries across the world use tourism satellite accounts, Input-output table and model, social accounting matrix, and computable general equilibrium model for assessing the economic impact of tourism.

Godara *et al.* (2020) try to examine the association between travel and GDP in India from the fiscal year 2000- 01 to the fiscal year 2018-19 using the least square method (OLS). The study found that the growth rate of foreign tourism revenue has a direct relation to a country's economic growth, and a 100% change in tourism revenue growth causes a 19% change in GDP.

Antara and Sumarniasih (2017) comparing the foreign tourist visits to Bali with the total foreign tourist visits in Indonesia, and it forms a significant portion. The increasing trend from. Growth in the Number of star and non-star hotels. Tourism contribution to the economy of Indonesia amounted to 16.15% in 2000 decreasing to 14.60% in 2014. However, if it is represented by the tertiary sector it amounted to 40.62% in 2014, an increase from 38.48% in 2010. Tourism was one of the key foreign exchange-earning Industries from 2010 to 2014 – it was in the top 4th industry after oil and gas, coal, Palm oil, and processed rubber in Indonesia.

Sharma and Vyas (n.d.) discuss the importance of tourism to Rajasthan State and India's Economy as a whole. Tourism growth will lead to an increase in disposable income Growth in the IT and Outsourcing industry, and development of other sectors related to tourism, and the creation of more employment opportunities.

3. Research Methodology

3.1 Research Design

The present study adopts Descriptive Research design for the study. Descriptive research aims to describe and depict the characteristics of a particular phenomenon or population without manipulating any variables. The study compares the contribution of tourism to GSDP in South Indian states by using data on tourism-related activities from Tertiary activities from the Gross State Domestic Product (GSDP) table issued by the Ministry of Statistics and Programme Implementation (MoSPI) (2022).

3.2 Objectives of the Study

The goal of this study is to analyse the tourism performance of all the south Indian states and determine what proportion of a state's Gross State Product (GSDP) comes from the tourism industry.

3.3 Methodology of the Study

The study uses secondary data from a variety of sources to quantify the effect of tourism. The whole state's domestic product is compared with the gross value added by tourism. Key elements connected to tourism are obtained from tertiary sectors to calculate the contribution of tourism to state GDP such as contributions from hotels and restaurants and contributions from all types of transportation services, including air, land, and sea. The contribution of tourism to all south Indian states' GDP is compared with each other to conclude.

3.4 Profile of the Study Area

The five states that make up South India are Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, and Telangana. Every State provides distinctive and varied tourist experiences. These are situated on the Peninsular Decan plateau, which is bounded to the east and west by the Bay of Bengal and the Arabian Sea, respectively. Languages spoken here are older than Hindi. Karnataka tourism offers adventure, pilgrimage, cuisine, history, beach tourism, etc., living up to its slogan of "One State many Worlds." Bengaluru, its capital, is renowned as Silicon Valley. Varkala Beach, Kumbalangi Silent Valley, Ponmudi Hill Station, Thenpula, Alapuzza, and other well-known tourist destinations can all be found in Kerala. Ooty, Madurai, Kanyakumari, Thanjavur, Kodaikanal, and others are well-known tourist destinations in Tamilnadu; Mahabalipuram is the most popular. AP is well known for its beaches, Eastern Ghats, and Temples. In AP, Tirumala and Borra Caves receive the most visitors. Similarly, the state of Telangana offers a variety of tourism experiences. All these southern states contribute significantly to India's Economy and it is important to know the contribution of tourism from these states. (Maps of India, 2015)

4. Data Analysis

Table 2 show the contribution from key tourism areas to the respective state's GSDP from 2019-20 to 2021-22.

The preceding table makes it very evident that, throughout time, tourism has made a considerable contribution to a state's GDP. Among all the Key elements of the Tourism sector contribution from road transport is the highest, and the contribution from water transport is the least to the state's economy. Twenty per cent or more of the total contribution comes from hotels and restaurants.

Table 2. Showing tourism contribution to GSDP to Karnataka State

Key Tourism elements	2019-20 (in lakhs)	2020-21 (in lakhs)	2021-22 (in lakhs)
Hotels and restaurants	1582598	1638751	2002351
Railways	232986	212607	224601
Road transport	5082433	5053060	5214885
Water transport	34435	33027	33586
Air transport	174482	85546	149570
Services incidental to transport	91828	78088	80421
Total	7198762	7101079	7705414
Total GSDP	114982904	114387339	125223259
Tourism as per cent of total GSDP	6.26%	6.20%	6.15%

Source: Compiled from Ministry of Statistics and Programme Implementation, 2022

Table 3. Tourism contribution to GSDP to Kerala State

Key Tourism elements	2019-20 (in lakhs)	2020-21 (in lakhs)	2021-22 (in lakhs)
Hotels and restaurants	722988	628488	695571
Railways	163337	142561	153865
Road transport	2332730	2022374	2074893
Water transport	38921	25134	25829
Air transport	84518	70508	75058
Services incidental to transport	139806	114796	124709
Total	3482300	3003861	3149925
Total GSDP	56652270	50130965	53525275
Tourism as per cent of total GSDP	6.1%	6.0%	5.9%

Source: Compiled from Ministry of Statistics and Programme Implementation, 2022

Table 4. Tourism contribution to GSDP to Tamil Nadu State

Key Tourism elements	2019-20 (in lakhs)	2020-21 (in lakhs)	2021-22 (in lakhs)
Hotels and restaurants	1676786	1257801	1600263
Railways	510919	473021	494283
Road transport	3249965	3218720	3395535
Water transport	85200	79274	86924
Air transport	124615	61645	147844
Services incidental to transport	720662	670209	746920
Total	6368147	5760670	6471769
Total GSDP	127855872	129665935	139842586
Tourism as per cent of total GSDP	4.98%	4.44%	4.62%

Source: Compiled from Ministry of Statistics and Programme Implementation, 2022

Like its neighbouring state Karnataka, Kerala's economy benefits from tourism as shown in the Table 3. A major contribution comes from road transportation and hotels and restaurants. In comparison to other elements, water transport's contribution is also the smallest in this case. Additionally, a significant 6% of the economy is contributed altogether by tourism-related activity.

Tamil Nadu's GDP contribution from tourism is lower than that of other states (Table 4). However, Tamil Nadu is the top destination for both domestic and international visitors. And it comes in second place to Karnataka in terms of overall contribution.

Both Andhra Pradesh and Telangana (Tables 5 and 6) profit from the state's tourist industry, which has contributed between 7% and 8.4% of each state's GDP over the past three years. In comparison to other tourism-related components, road transportation, and hotel and restaurant contributions are at their highest level here.

Table 5. Tourism contribution to GSDP to Andhra Pradesh State

Key Tourism elements	2019-20 (in lakhs)	2020-21 (in lakhs)	2021-22 (in lakhs)
Hotels and restaurants	833583	939138	1000076
Railways	452896	438652	516381
Road transport	3372120	2922069	3249231
Water transport	123234	70576	88046
Air transport	24024	9254	16880
Services incidental to transport	545725	473407	595142
Total	5351582	4853096	5465756
Total GSDP	66978337	67032150	74691274
Tourism as per cent of total GSDP	8.0%	7.2%	7.3%

Source: Compiled from Ministry of Statistics and Programme Implementation, 2022

Table 6. Tourism contribution to GSDP to Telangana State

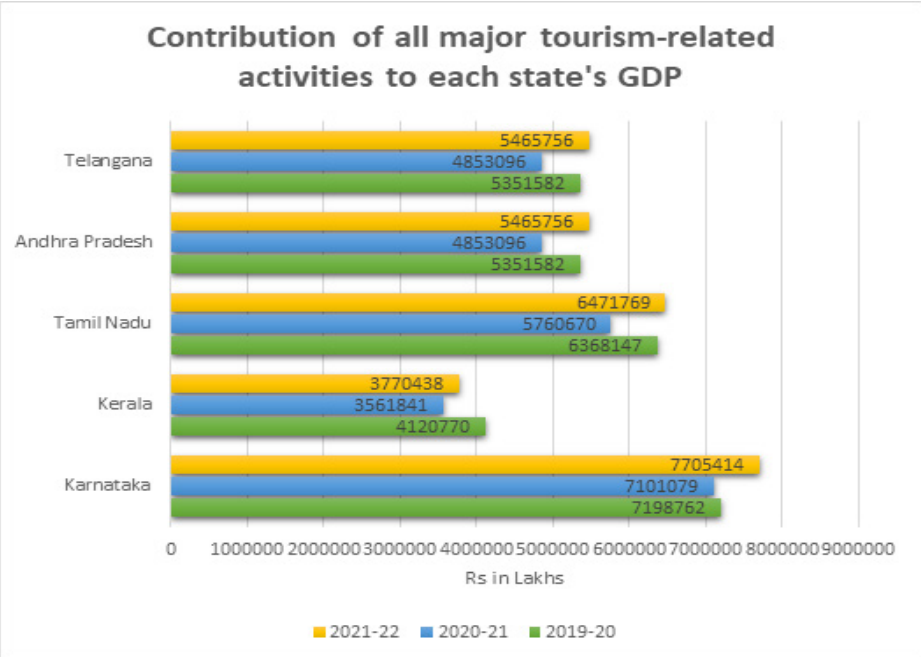
Key Tourism elements	2019-20 (in lakhs)	2020-21 (in lakhs)	2021-22 (in lakhs)
Hotels and restaurants	763480	575431	703787
Railways	204165	154054	219912
Road transport	2499070	2405387	2529976
Water transport	0	0	0
Air transport	106202	73060	76983
Services incidental to transport	436594	369454	347954
Total	5351582	4853096	5465756
Total GSDP	63868152	61636878	68555024
Tourism as per cent of total GSDP	8.4%	7.9%	8.0%

Source: Compiled from Ministry of Statistics and Programme Implementation, 2022

5. Discussion and Conclusion

The tourism industry's past three years' contribution to each state's GDP is depicted in Figure 1. Karnataka makes the most contribution out of all the states, followed by Tamil Nadu. Even though the graph shows that Kerala is last on the list among South Indian states, when compared to its area and population, it receives a sizable portion of its income from tourism.

Tourism is a multibillion-dollar industry that supports the economy in a variety of ways and employs thousands of people. It is clear from the study above that tourism significantly contributes to the economies of Southern Indian states. Comparative analysis reveals that each state's tourist industry contributes at least 6% of its GDP, which is crucial because it affects the employment contribution. Reviving tourism-related activities following COVID is critical to increasing these contributions. The government



Source: Researcher calculation based on Data from MoSPI

Figure 1. Comparison of Tourism Contribution to South Indian states.

should guarantee that all facilities are in place to ensure that tourism activities run smoothly.

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Impact of Excessive Workload on the Work-Life Balance of Police Personnel in Karnataka

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Abstract

Policing is a stressful job wherein, the workforce, performing duties in such stressful environments will be exposed to traumatic events and chronic stress in their line of duty. Irrespective of designations, policemen experience a lot of physical and mental health issues, addictions, extreme stress and pressure, excessive workload, and life-threatening situations. Several studies state that the work culture and constant stressful environment faced by the policemen make them victims to smoking and alcohol addictions. Despite the power and possession, policing is content of all such negative elements and yet there is still no permanent cure for the issues. Theories of Management suggest that there is always a solution for every problem in hand. The researchers, in this study emphasize on the inculcation of managerial aspects in the Police work culture. This study is focusing on the assessment of influence of excessive workload on the work-life balance practices of Karnataka State Police (KSP). The current study also emphasizes the positive outcomes of an effective managerial education in maintaining a healthy work-life balance among the Police Professionals. The researchers have attempted to enlighten the importance of efficient human resource management practices to safeguard the personal and professional aspects of Police personnel. The findings of the study showcase the numerous advantages of efficient managerial training and education in handling excessive workload and efficient balancing skills to enhance healthy work-life balance practices among the Police personnel in Karnataka.

Keywords: **Karnataka Police, Police Personnel, Stress, Workload, Work Life Balance**

JEL Classification Code: 015

1. Introduction

Karnataka was formerly called as the Mysore State until 1973, later the princely state was renamed to Karnataka state on 1st November, 1973 (Ghori, 2010). During the rule of Maharajas of Mysore, until 1965, policing did not exist in a hierarchal manner, instead policing was in existence with different names such as *Talwars, Thotis, Neeragantis, Kavalugararu, Amaragararu, Ankamaale, Patela, Shyanubhogas,* etc. Sri. L. Rickets has the fame of being appointed as the first Inspector General of Police in the history of Mysore state. Today, the State police has grown to be a big and complex organizational structure which is run on modern management principles. (Karnataka State Police, n.d.).

Initially, policing was just the job of protecting and safeguarding the law & order in the province but in modern days, policing is just not the protection but also prevention. Preventing crimes and unlawful activities before they happen is the prime responsibility of police personnel. Technology is a two-edged sword that when stuck, cuts from both sides. Over the last decade, the state has witnessed a drastic change in hotel-industry, IT sector, SSIs, construction and development agencies, human resources, innovation and technology-based start-ups and more. Optimistically, this is an appreciable economic progress in the province but pessimistically, the increase in economic activities has also increased the population in the state. Increase in population proportion is substantively related to the crime rates (Chamlin &

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Cochran, 2004). As per this study, it was proved that population proportion was positively related with the increase in the crime rates. Therefore, it can be noted that any increase in the population proportion in any given province, then the workload or duty responsibilities of police personnel shall be increased.

2. Review of Literature

Purba and Demou (2019) in their research paper, *"The relationship between organizational stressors and mental well-being within Police officers: A systematic review"* have brought forward the evidence to prove the association between organizational stressors and occupational stress, depression, psychological distress, emotional exhaustion, depersonalization, and personal accomplishments. The results reveal that the organizational stressors intimidate anxiety, depression, and suicidal ideas in the mind of an individual. The study has been concretely evidential in proving that the organizational stressors namely organizational culture, unfair workplace, dissatisfaction in the department, work role demands, mental expectations, work pressure, heavy workload, extended work hours, inadequate up, contempt, leadership, sexual and language harassment, bias, peer attitudes, poor decisions, a difference of social class, performance and reward imbalance and overcommitment were the significant contributors for the adverse mental well-being conditions.

Boyanagari *et al.* (2018) have analyzed the data related to Police officers in India, particularly in the state of Andhra Pradesh, to find out the essence of Police personnel as an important occupational group who constantly work under stressful situations. They have also investigated on data related to preventive programs in the government organizations and studies on occupational stress among these Police officers. Through their study, they have concluded that it is very essential to develop an adequate evaluation of occupational injury and illness among Police officers. The prevalence of a hazard surveillance system for tracking the same must be monitored. Additionally, the association between chronic diseases and mortality should be considered.

Bindu *et al.* (2016) have elucidated the training programs, methods and rewards. In their study, researchers have enlisted various training institutes in located Karnataka for the purpose of Police training. They have disclosed the various infrastructure facilities available at training centers. Overall research shows that the training for the recruits included computer-based training, physical training in both indoor and outdoor activities, training in crime detection and prevention, map reading and plan drawing, First aid, intelligence and also induction training, refresher training and pre-promotion training for Police officers who are in service.

Yawalkar and Sonawane (2016) have determined their work in identifying the challenges involved and factors affecting the work-life balance of Police personnel in Jalgaon. Apparently, the data is collected from 30 sample respondents to assess the researcher's assumption and the obtained result demonstrated that general working hours of a Police personnel is not fixed to a certain limit thereby being the primary source of stress and dissatisfaction. The researcher, through a thorough analysis states that the Job profile of a Police personnel is the major challenge in rationing adequate time for family and personal care. In addition, the researcher suggests that the development and implementation of a proper policy with respect to the Police personnel will assist in maintain a healthy work-life balance among the Police Officers.

Kazmi and Singh (2015) have observed the enigmatic and strenuous work involved in the job profile of Police Officers. The researchers have scrutinized the existing theory of job satisfaction, occupational stress and work conflicts and attempted to analyze the impact of work-life balance, work stress on the job satisfaction also the researchers identify the enduring strategies and cognitive efforts to overcome the challenges involved in handling a proper work-life balance and job satisfaction. This theory is tested using 350 samples in the region of Delhi and Uttar Pradesh based on Non-probability Convenience sampling technique. However, the results disclosed that the independent variables – Work-life balance, Occupational stress and Coping strategies to be the significant predictors of Job satisfaction while, improper coping strategies revealed a destructive impact of stress on the work force.

Goswami and Burman (2015) have worked on a study focusing on the impact of work stress on job satisfaction and on psychological wellbeing among Police officers. They have also analysed the role of workplace support as a moderator, in the relationship of work stress with

job satisfaction and psychological wellbeing. Through the study, they have concluded that when the working environment is favourable, the stress is faced by employees is lower and their job performance is significantly enhanced. Work related factors are the main cause of stress and is directly related to their psychological, emotional, and physiological well-being. They've analysed that stress has been discussed as the procedure of adjusting to or dealing with situation that interrupt, or intimidate to disrupt a person's physical or psychological functioning. To deal with such a scenario, workplace support from supervisor and co-workers acts as a moderator and does not lead to negative outcomes due to work stress, it rather creates a positive impact and leads to job satisfaction, thus acting as a moderator in the relationship of work stress with job satisfaction and psychological well-being

3. Research Design

3.1 Statement of the Problem

A healthy work-life balance is essential for every individual irrespective of the profession. Physical and mental health of an individual employee is dependent on the satisfaction level of that particular employee with respect to their work-life balance (Kauser, 2016). Policing is a stressful job as it is content of physical and mental stressors. Work environment is content of various factors that influence the work-life balance of police officers such as long working hours, excessive workload, peer pressure, superior pressure, multiple tasks, lack of public support and trust, workplace conflicts, family conflicts and much more. This study particularly studies the influence of workload on the work-life balance of KSP. The Official portal of the KSP disseminates the total number of cases registered every year throughout the state. The data disclosed showcases only the number of registered cases but the problem exists in solving those cases within the allotted time frame which might as well be subject to external or superior pressure.

3.2 Objective of the Study

This research attempts to study the influence of excessive workload on the work-life balance practices of Karnataka State Police (KSP).

3.3 Research Gap

Based on the literature review, it is evident that many studies have been conducted on the theme of work-life balance among police personnel based on primary information. All the studies are made based on primary information with respect to. All these studies have focused on demographic characteristics, organizational characteristics, and societal characteristics to study the work-life handling capabilities of the respondents. This leaves a potential gap to study the work-life balance hurdles caused solely on the grounds of workload. The police profession is well-known for its excessive workload with the minimum available time. Therefore, this study is an attempt to showcase the workload of policemen in Karnataka (as per the databases) and how they impact on their work-life balance.

3.4 Research Methodology

The researchers have collected data from secondary sources such as statistical information available at the official portal of Government of Karnataka (GoK) and KSP. Data of the previous five years, i.e., from 2017-2021, has been collected through the official portal and the same has been further analyzed to interpret the results. The data available at the source discloses month-wise statistical reports which have been summarized and consolidated by the authors as per requirement.

4. Data Analysis and Interpretation

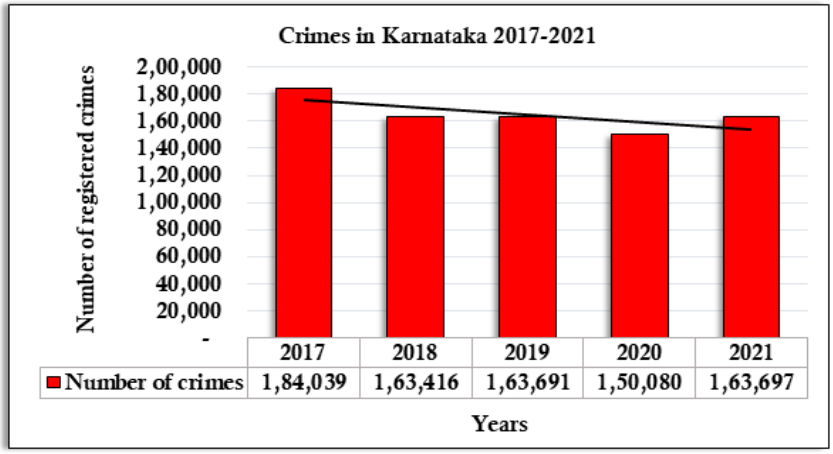
Police are the first line responders for any uneventful incidents, criminal activities, public safety, VIP gatherings, law and order maintenance and so on. In their line of duty, they may encounter situations that are perilous, life threatening, mentally disturbing and also publicly disapproving. Being a police officer is not a straightforward one, as it involves problems in both workplace and personal space. The prime responsibility of any police personnel is to protect law and order in the society.

Currently, the Karnataka State Police is functioning on seven different ranges namely Belagavi (Northern), Mysuru (Southern), Mangaluru (Western), Davanagere (Eastern), Bengaluru (Central), Kalaburgi (North-Eastern), Ballari (Ballari) wherein, each range covers a minimum of three districts. KSP is also functioning under seven different

Table 1. Table showing the number of crimes in Karnataka

Sl.No.	Districts	2017	2018	2019	2020	2021
1	BengaluruCity	53,705	3,049	2,789	2,582	2,829
2	MysuruCity	3,014	39,976	41,854	34,156	36,310
3	HubballiDharwadCity	2,270	6,136	6,008	5,409	5,916
4	MangaluruCity	3,789	5,929	5,346	5,589	6,065
5	BelagaviCity	2,475	4,341	5,068	5,292	6,115
6	BengaluruDistrict	6,249	4,096	3,789	3,544	3,582
7	K.G.F.	639	3,701	3,759	4,032	4,448
8	Kolar	2,220	2,718	4,699	3,287	4,013
9	Tumakuru	6,378	2,824	2,633	2,035	2,349
10	Chikkaballapura	2,852	3,013	3,272	3,395	3,633
11	Ramanagara	4,730	4,256	4,485	4,809	5,205
12	Chitradurga	4,589	2,265	2,039	1,829	2,009
13	Davanagere	4,314	4,275	3,937	3,462	4,007
14	Shimoga	6,975	1,333	1,286	1,364	1,719
15	Haveri	2,637	2,028	1,643	1,512	1,610
16	Chikkamagaluru	3,536	4,892	3,192	3,306	3,198
17	DakshinaKannada	2,476	5,968	5,323	5,641	6,464
18	Udupi	3,066	2,725	2,827	2,785	3,004
19	UttaraKannada	3,431	1,924	1,923	1,841	2,934
20	Bagalkot	3,001	760	837	739	851
21	BelagaviDistrict	6,591	1,880	1,867	1,686	1,683
22	Vijayapura	4,344	2,094	2,058	2,167	2,397
23	Dharwad	1,412	3,322	2,653	2,566	2,660
24	Gadag	2,059	6,248	5,900	5,930	6,072
25	Bidar	3,783	3,231	3,119	2,375	3,147
26	Kalaburgi	5,008	3,198	3,256	2,607	2,810
27	Yadgiri	1,932	4,758	4,657	5,077	5,595
28	Chamarajanagara	2,598	3,705	3,350	3,448	3,540
29	Hassan	5,821	1,344	1,863	756	920
30	Kodagu	2,031	4,084	4,147	4,631	4,185
31	Mandya	6,874	6,460	5,682	5,281	5,710
32	MysuruDistrict	5,622	6,153	6,143	6,013	6,722
33	Ballari	4,940	3,132	3,078	2,636	2,704
34	Koppal	2,802	3,343	3,306	2,910	3,126
35	Raichur	4,052	2,015	1,966	2,153	1,996
36	KarnatakaRailways	1,824	2,240	1,989	1,511	1,788
37	KalaburgiCity	NA	NA	1,948	1,724	2,381
STATE TOTAL		1,84,039	1,63,416	1,63,691	1,50,080	1,63,697

Source: https://ksp.karnataka.gov.in/new-page/Crime%20in%20Karnataka/en



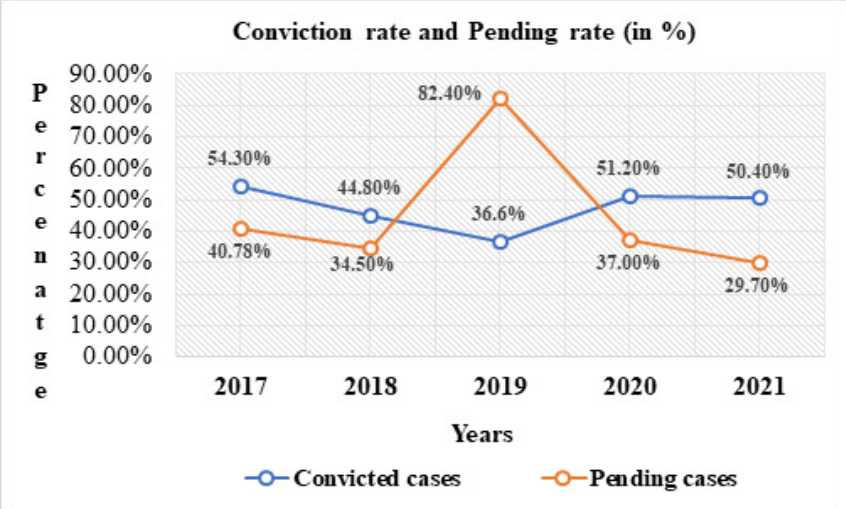
Source: Desk research

Figure 1. Chart showing the graphical representation of crimes in Karnataka.

wings namely '*Law & order wing, Intelligence wing, Crime & Technical services wing, Police Computer wing, Criminal Investigation Department, Karnataka State Reserve Police, Communication, Logistic and Modernisation wing;* to safeguard the law enforcement within the province.

The above table discloses the number of registered cases in each district across Karnataka every year from 2017 till 2021. The number of cases enlisted in Table 1 is inclusive of the crimes of both Indian Penal Code (IPC) and Special and Local Laws (SLL) categories. These crimes are inclusive of both cognizable and non-cognizable offences such as murder, robbery, burglary, abduction, narcotics, cheating, forgery, assault, defamation, etc. Kalaburgi was not segregated as Kalaburgi city until 2019 and hence, in the Table 1, number of crimes in Kalaburgi city for the years 2017 and 2018 have been marked as NA.

Figure 1 depicts the graphical representation of the number of crimes registered in the Karnataka State during the years 2017-2021. Figure 1 indicates a downward trend in the registered crimes during these five years wherein, the number of total crimes registered in the year 2017 was 1,84,039 which saw a drop by - 11.205 % in the year 2018; thereafter the number of crimes raised by + 0.168 % during the year 2019 with a total number of 1,63,691



Source: Desk research

Figure 2. Figure showing the percentage of convicted cases and pending cases.

cases; the total number of crimes in 2020 was 1,50,080 which again showcased decline in the number of crimes by - 8.315 % and the same saw a rise by + 9.073 % in the year 2021 summing up to a total of 1,63,697 cases.

In the Figure 1, the least number of cases registered was in the year 2020, which was due to the pandemic. An article suggests that on an average, the time taken to solve a case in India ranges 10-15 days depending upon the type of case. As a reason of thorough investigation and collecting substantial evidence, time period consumed in case of criminal cases for solving shall be up to 6 months (Tiwari). As per the secondary sources, there are up to 1,09,519 policemen working in the Karnataka Police Department (KSP, n.d.) wherein the population of the State, as per the Aadhar statistics during February 2019 sums up to 6.62 crores (indiagrowing.com, 2019).

Figure 2 reveals the rate of pending cases and convicted cases during the years 2017 to 2021. In the year 2017, there were a total of 1,84,039 cases registered and the corresponding conviction rate and pendency rate were 54.3 % and 40.78 % respectively; in the year 2018, total number of registered cases were 1,63,416 and the corresponding conviction rate and pendency rate were 44.8 % and 34.5 % respectively; in 2019 there were 1,63,691 cases with a conviction rate of 36.6 % and a pendency rate of massive 82.4 %; in the year 2020, 1,50,080 cases had a conviction rate of 51.2 % and a pendency rate of 37 %; similarly the year 2021 had 1,63,697 cases with 50.4 % conviction rate and 29.7 % pendency rate (State Crime Records Bureau, n.d.). Pending cases of each year disclosed in Figure 2 indicates the percentage of pending cases of that respective year and pending cases of the previous year shall be carried forwarded to the current year, which is not included in the present year's data.

Amongst the registered crimes, up to 40 % of the crimes are comprised of violent crimes, property crimes and economic crimes while the remaining 60 % of the crimes are comprised of other IPC and SLL crimes. This concludes that police personnel have to work cautiously while investigating and collecting evidence of criminal cases, which will consume more time. All these cases must be completed within the shorter time frame with other tasks in hand every day. With the above data, it is evident that the workload is constantly rebuilding throughout the year and policemen are running short of time in handling the burden. When there is excess of work and less time to complete them, such situations tend to burnout (Queiros *et al.*, 2020).

5. Discussion and Conclusion

Mr. Raghavendra Auradkar, Additional Director-General of Police (Recruitment), had submitted a proposal to implement the eight-hour shifts instead of current shifts. The proposal had mentioned about the benefits of eight-hour shifts which could directly improve the work efficiency of around 1.08 lakh policemen and substantially reduce their fatigue and work pressure. The proposal also tagged the unfair difference between the sanctioned strength and existing strength. As per the proposal, three-shifts strategy would separate the staff between crime and law and order branches and provide a fixed time of duty to all the policemen who were working for a minimum of 12 hours per day without any time limits. It would also distribute manpower to the jurisdictions where the actual requirement is high and reduce the excess manpower where the requirement is less. Despite the efforts, the State Government is yet to fill 23,000 vacancies. Officials within the department believe that the three-shifts strategy can only be implemented by restructuring the organization and which is why the government has held the approval of the same till date (Police News Plus, 2019).

All the data showcased in Table 1, Figure 1 and Figure 2 reveals the workload that is present on the records. Policemen are handling far more workload off the records, and they experience the pressure and burden of overtime and excessive workload. Even today policemen are working for a minimum of 12 hours in a day and they hardly get their week-offs. Their duty and functions have no limits and moreover they do not have a fixed time duration of work, which is even more stressful. Work-life balance is said to be intact only when a person can make the right decisions in both workplace and personal life. Right decisions always come from a sound mind and straight thinking which is possible only when the mind is provided with proper care and rest. Adequate personal time and work-life balance is the need of the hour for policemen in Karnataka. Hence, work-life balance is the

key to enhance the efficiency and personal growth of policemen.

Work-life balance is all about proportioning the available time between work and personal space. Human resources are an important part of any organization. In the work environment as dynamic and challenging as Police department, where manpower is the ultimate source of reliability and progress, it is very necessary to protect the health and mind of the personnel. Policing involves a tremendous workload where multi-tasking is a routine challenge and apportioning time for personal care and family care becomes a harder task. A healthy work-life balance is the result of positively handling stress and hardships at both workplace and personal space. In this study, the researchers have identified the extensive workload borne by the Karnataka Police which creates a hurdle in maintaining a work-life balance.

Policemen are neither rewarded nor recognized for their honest efforts towards social cause. Instead, they are criticized for their harsh actions and judged for their behavior. Public have failed to understand the motive behind their actions and have failed to empathize their stance which is why policemen possess poor public image. Absenteeism, alcohol and smoking addictions, procrastination, health risks and inefficiency in work handling are the common results of improper balance of work and life. Psychology experts suggest that the best cure for stressors is communication. Proper communication at the time of need and to the people of need, reduces the stress burden which also eventually motivates people to accomplish their tasks successfully.

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Implications of Priority Sector Lending on Capital Adequacy Ratio: An Evaluative Study on Non-Performing Assets

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Abstract

The survival and growth of banking industry is depends upon the credit creation ability and debt recovering capacity. In Indian context the banking institutions are struggling from growing outstanding debts termed as Non-Performing Assets (NPA). To avoid this and generate attractive revenue earlier banks were offering loans to creditworthy individual and large established business by ignoring those sectors whose development is much needed to develop the country and social welfare. The norms of priority sector lending introduced by the government mandate the banks to provide loans to priority sector. The particular research aims to evaluate the impact of total NPA in general and NPA of priority sectors in particular on the capital adequacy by examining the share of priority sectors NPA in total NPA. The study concluded that Indian banks are fundamentally strong with significantly higher capital adequacy ratio while comparing to Basel III standards. So that the banks can extend liberalized advances to priority sectors.

Keywords: **Basel Norms, Capital Adequacy Ratio, Non-performing Assets, Priority Sectors, Financial Sources**
JEL Classification Code: Q14, H81, G28

1. Introduction

The post-independence era of India has been characterized by the efforts on agriculture development from the grass root level. The Planning Commission of India introduced institutional arrangement towards upliftment through its policies. The first five year plan 1951 based on the Harrod-Domar model entirely focused on the primary sector, has achieved the growth rate of 3.6 per cent against the target 2.1 per cent (Revathi, 2022).

Though the macro level policy became successful; the micro level was depicting the failure of implementation. The financial institutions were looking forward providing advances to businessmen and high net worth individuals by ignoring the essential sectors, most crucially the agriculture; in fact their growth ensures the development of the country in true sense. The prevailing situation demanding major policy level changes in the field of flow of finance through the concept of Priority Sector Lending.

In 1972, the meaning of Priority sector Lending was formalised by the Reserve Bank of India (RBI) on the recommendation of the Informal Study Group on Statistics related to Advances to Priority Sector Lending. In 1974, the RBI advised the public banks to provide 33.3 per cent of their aggregate credit to the priority sectors by 1979 and private sector banks to provide 1/3rd of advances by the year 1980 (Udithraj, n.d.). Since then, the target under priority sector lending has been modified according to the requirement.

1.1 Non-Performing Assets and its Consequence

A non-performing asset may be considered as a loan or an advance where, interest and / or instalment of

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principal remain overdue for a period of more than 90 days in respect of a Term Loan (or) The account remains 'Out of order' for a period of more than 90 days, in respect of an Overdraft/Cash Credit (OD/CC) (or) The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted (or) In the case of direct agricultural advances as listed in Annex 1, the overdue norm specified at para 2.1.5 would be applicable. In respect of agricultural loans, other than those specified in Annex 1, identification of NPAs would be done on the same basis as non-agricultural advances (or) Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts. (RBI, 2011).

Since the beginning, Indian banks are struggling with twin balance sheet problem. The compulsion of priority sector lending added an extra volume to it. The agriculture being major head under priority sectors suffering from various drawbacks due to natural and infrastructural shortcomings. The rule of collateral free advances to agriculture has an adverse impact on recovering of loan given. The raising targets and growing NPA are hindering the profitability of the commercial banks.

1.2 Capital Adequacy: Significance and Implications

Capital adequacy ratio indicates the financial stability and solvency of the financial institutions. In the globalised era crisis in a particular economy would have drastic implications on the economies of rest of the world. The Great Recession brought by The Lehman Brothers collapse impacted the global economy several years. In response to the shortcomings of 2008 crisis, The Basel Committee on Banking Supervision (BCBS) came up with BASEL III Norms in 2010 to strengthen the international banking system and coordinate the banking regulations across the globe. BASEL norms requires the bank to maintain certain level of liquid assets and reserve capital to meet uncertainties effectively. The BCBS divides the capital of into Tier-1 and Tier-2 capital. Tier-1 consists the core capital, equity and disclosed reserves that appear in the financial statement. Teir-2 capitals are supplementary in nature which includes undisclosed reserves and unsecured subordinated debt instruments.

1.3 Statement of the Problem

The survival and growth of any financial institution is basically depends on the extent of its credit creation and ability to recover the same. The non-recoverable credit that is Non-Performing Assets in banking analogy questions the fundamentals of the institution. The collapsing of financial institutions has the grate implications on the country's economy in general and threatening global economy in particular. To overcome from the disastrous event globally.

2. Review of Literature

Review of literature augment the fundamental knowledge of a researcher in the particular research area. The researchers reviewed various articles from peer reviewed journals, some of them are as follows:

Mohanchandran (2000) conducted an empirical research entitled impact of priority sector lending by commercial banks on the rural development of Kerala. The objective of the study was to know the utilisation pattern of loan and reasons for non-payment of loan among farmers. Based on primary and secondary data, the researcher concluded that the present system of credit monitoring and servicing of banks are ineffective in preventing misutilisation of funds. The priority sector lending by commercial bank is helped the farmers in their socio-economic development, and bank should focus on the viability, suitability and potentiality of agriculture advance.

Meenakshi and Mahesh (2010) conducted a study on commercial banks regarding to banking sector reforms and non-performing assets. Based on the NPA trend of commercial banks from 2003 to 2009, the researchers conclude that NPA is the root cause for global financial crises. The problem of NPA received considerable attention after the liberalisation and accounting practices have been modified in this regard. The volume of bad loans have been declining, but the NPA in priority sectors still remains high. The study suggested to adopt self-help group model to provide loan to some of the sectors and it ensures the repayment of the bank.

Shenbagavalli (2013) studied on the strategy to manage the NPAs of public sector banks suggested that bank should conduct a personal visit and face to face interaction

with the borrowers and inspection of borrowers business. This will help the bankers to know the financial status of the borrower and minimise the chances of wilful default. Effective information system mechanism helps the bank in continuous inspection of the accounts of the borrower in order to minimise of NPA.

Thorve (2017) conducted a research entitled "Analytical study of priority sector lending with special reference to lead bank scheme in Maharashtra". The objective of the study was to study the trends of priority sector lending of lead banks in Maharashtra state and study the contribution of lead banks in terms of priority sector lending under Maharashtra state. The study is based both on primary and secondary data; the sample size was 10 District of Maharashtra. The researcher concluded that all banks are looking for the business; open the branch according to size of population and it would lead the underdevelopment of certain region. The credit concentration by banks in certain profitable sector resulted in credit deficiency in other sector. The State Bank of India and Bank of Maharashtra are contributing well towards lending. Climate change, NPA and wilful default became a major hurdle for target achievement.

Agarwal *et al.* (2021) made a research entitled "The Impact of Non Performance Assets on Bank Performance under BASEL Regime- Empirical Evidence from India". The research was based on the data from 2008 to 2018 of 64 commercial banks. The researchers found that NPA decorate the banks profit margin and increase the provisions for bad debts. Further wealth erosion leads to lose the confidence of the investors. The Capital Adequacy Ratio under BASEL III norms helps in tightening the capital requirement and ensures stability.

3. Research Design

3.1 Objectives of the Study

1. To examine the advances of select banks against the target under priority sector lending.
2. To analyse the trend of non-performing assets in priority sectors among the select banks.
3. To evaluate the impact of non-performing assets on the Capital Adequacy Ratio of select banks.

3.2 Hypothesis

H_0: Total non-performing assets have no significant impact on the Capital Adequacy ratio of the select commercial banks.

3.3 Sources of Data

The study was based on secondary sources of data. The data have been referred from the annual reports of select commercial banks from 2017-18 to 2021-22. The researchers also referred scholarly articles and magazines.

4. Data Analysis and Interpretation

4.1 Advances by Select Commercial Banks towards Priority Sector Lending

The lending target under priority sector lending has been continuously revised by the RBI by its official directions. The commercial banks, either public sector or private sector, are bound by the direction of RBI. Table 1

Table 1. Percentage of Priority Sector Lending out of Total Advances

Year	2022	2021	2020	2019	2018	2017	Average	SD	Rank
State Bank of India	28.34	26.96	26.50	27.63	27.40	26.50	27.22	0.71	6
Canara Bank	49.96	48.48	46.03	44.56	44.79	43.41	46.20	2.52	1
Bank of Baroda	35.33	36.24	34.25	35.11	34.85	37.50	35.55	1.16	2
HDFC Bank	29.34	23.38	26.33	27.37	27.09	30.39	27.32	2.45	5
ICICI Bank	30.47	29.19	32.28	32.40	20.75	27.37	28.74	4.35	4
Axis Bank	37.55	31.25	26.93	25.60	25.55	28.89	29.30	4.59	3

Source: (Trendlyne, 2022)

represents the target achieved by the commercial banks under priority sector lending.

Table 1 represents share of priority sector among the total advance by the six select banks from the year 2016-17 to 2021-22. It can be observed that Canara Bank performing extremely well by providing average 46.20 per cent of total advances to the priority sector, the bank has been leading financial institution in each year to sanction loans to essential sectors of the economy followed by Bank of Baroda (35.55 per cent) and Axis Bank (29.30 per cent). The leading private sector giants ICICI Bank and HDFC Bank are performing moderately by providing 28.74 per cent and 27.32 per cent, respectively. On the other hand, public sector pioneer The State Bank of India, with an average 27.22 and standard deviation 0.71, constantly extending minimum advances to the priority sectors.

4.2 Trends of Non-performing Assets and Capital Adequacy Ratio among the Select Commercial Banks

While implementing BASEL norms notified by BCBS, the RBI adopts more conservative approach by modifying capital adequacy ratio to ensure resilience and sustainability of Indian banking industry among the international players. As per BASEL III norms released in 2009 the bank should maintain 8 per cent Capital to Risk Weighted Assets. The RBI modified and introduced in 2019, mandated 9 per cent for private sector banks and 12 per cent for public sector banks. As the capital adequacy position ensures the liquidity, solvency and shock absorbing capacity, as opposing it, NPA threaten the solvency position of the banks. The researcher in the Table 2 attempted to analyse the trend and evaluate the impact of NPA on the capital adequacy ratio of the select banks.

Table 3 represents the trends of non-performing assets in agriculture, priority sectors and total NPA with Capital Adequacy ratio for the six consecutive years. For further analysis the researchers tested the hypothesis by applying Regression model.

The results of linear regression of total Non-performing assets on Capital Adequacy Ratio of the State Bank of India

Table 2. Trends of NPA and CAR among select commercial banks (Figures in Percentage)

	Year	2017	2018	2019	2020	2021	2022	Average
SBI	Agriculture	5.65	11.12	11.68	15.95	15.22	13.38	13.38
	Trend	100.00	196.94	206.83	282.35	269.52	236.92	196.94
	Priority sector	1.50	2.28	2.13	2.22	2.10	2.04	2.04
	Trend	100.00	152.80	142.73	148.42	140.18	136.18	148.42
	Total NPA	6.90	10.91	7.53	6.15	4.98	3.97	3.97
	Trend	100.00	157.99	109.11	89.13	72.09	57.57	89.13
	CAR	**13.11**	**12.68**	**12.72**	**13.06**	**13.74**	**13.83**	**13.83**
	Trend	**100.00**	**96.72**	**97.03**	**99.62**	**104.81**	**105.49**	**101.60**
Canara Bank	Agriculture	3.72	4.58	5.39	6.19	6.10	5.66	5.66
	Trend	100.00	123.15	144.73	166.17	163.90	152.06	144.73
	Priority sector	5.53	6.79	5.97	6.46	8.96	7.54	7.54
	Trend	100.00	122.61	107.87	116.66	161.91	136.25	122.61
	Total NPA	9.63	11.84	8.83	8.21	8.93	7.51	7.51
	Trend	100.00	123.02	91.73	85.28	92.76	78.01	123.02
	CAR	**12.86**	**13.22**	**11.90**	**13.65**	**13.18**	**14.90**	**14.90**
	Trend	**100.00**	**102.80**	**92.53**	**106.14**	**102.49**	**115.86**	**102.80**

Bank of Baroda	Agriculture	11.88	11.13	9.88	13.76	7.79	7.75	7.75
	Trend	100.00	93.75	83.20	115.89	65.61	65.23	93.75
	Priority sector	11.89	9.98	8.44	9.27	8.60	8.51	8.51
	Trend	100.00	83.99	71.00	78.00	72.34	71.55	83.99
	Total NPA	11.73	13.72	9.61	9.40	8.87	6.61	6.61
	Trend	100.00	116.93	81.94	80.12	75.61	56.32	116.93
	CAR	**14.55**	**12.13**	**13.42**	**13.30**	**14.99**	**15.84**	**15.84**
	Trend	**100.00**	**83.37**	**92.23**	**91.41**	**103.02**	**108.87**	**83.37**
HDFC Bank	Agriculture	2.03	3.42	4.29	4.28	3.67	4.07	4.07
	Trend	100.00	168.86	211.72	211.51	181.17	200.79	168.86
	Priority sector	1.50	2.28	2.13	2.22	2.10	2.04	2.04
	Trend	100.00	152.80	142.73	148.42	140.18	136.18	152.80
	Total NPA	1.04	1.28	1.35	1.25	1.31	1.17	1.17
	Trend	100.00	122.79	129.05	120.09	125.78	112.10	122.79
	CAR	**14.55**	**14.82**	**17.10**	**18.50**	**18.79**	**18.90**	**18.90**
	Trend	**100.00**	**101.86**	**117.53**	**127.15**	**129.14**	**129.90**	**101.86**
ICICI Bank	Agriculture	3.11	3.14	3.73	4.22	4.28	5.29	5.29
	Trend	100.00	100.75	119.72	135.76	137.57	170.15	100.75
	Priority sector	2.16	2.21	1.94	2.28	3.42	2.67	2.67
	Trend	100.00	102.26	89.76	105.46	158.42	123.65	102.26
	Total NPA	8.74	9.90	7.38	6.04	5.33	3.76	3.76
	Trend	100.00	113.26	84.45	69.09	61.05	43.02	113.26
	CAR	**17.39**	**18.42**	**16.89**	**16.11**	**19.12**	**19.16**	**19.16**
	Trend	**100.00**	**105.92**	**97.12**	**92.64**	**109.95**	**110.18**	**105.92**
Axis Bank	Agriculture	3.25	3.93	5.51	4.86	4.17	3.70	3.70
	Trend	100.00	120.95	169.54	149.54	128.31	113.82	120.95
	Priority sector	2.26	3.07	2.92	2.89	2.98	2.12	2.12
	Trend	100.00	135.84	129.20	127.88	131.86	94.02	135.84
	Total NPAs	5.21	6.79	5.31	4.52	3.54	2.57	2.57
	Trend	100.00	130.33	101.92	86.76	67.95	49.39	130.33
	CAR	**14.55**	**14.82**	**17.10**	**17.53**	**19.12**	**18.54**	**18.54**
	Trend	100.00	101.86	117.53	120.48	131.41	127.42	101.86

Source: Desk research

Table 3. Regression analysis of non-performing assets on capital adequacy ratio

Bank	R	R Square	Adjusted R Square	Standard Error	Significant Value
State Bank of India	.868[a]	.754	.692	.26368	0.025b
Canara Bank	.394[a]	.155	-.056	1.01264	0.440b
Bank of Baroda	.773[a]	.597	.497	.95074	0.71b
HDFC Bank	.380[a]	.145	-.069	2.05534	0.457b
ICICI Bank	.297[a]	.088	-.140	1.33461	0.567b
Axis Bank	.830[a]	.689	.611	1.17944	0.41b
Predictors: (Constant): Total NPA		Dependent: CAR			

Source: Desk research

with 95 per cent of confidence corresponding significant value of 0.05 has observed the correlation coefficient of 0.868, squared R value of 0.754 and a variance of 0.692. From the above analysis of data, it can be concluded that total Non-performing assets have a significant impact on the capital adequacy ratio of the bank. Because, R value is 0.868 and significant value (p-value = 0.025) is less than 0.05. Hence, null hypothesis is rejected. Therefore, the non-performing assets have a significant impact on the Capital adequacy Ratio of the State Bank of India. The average total gross NPA of SBI is 3.97 per cent, and the gross NPA of agriculture is 13.38 per cent both are above the gross NPA of priority sector that is 2.06, which means the capital adequacy position of the bank is not impacted significantly by the priority sector as whole.

In the case of Canara Bank, HDFC Bank and ICICI Bank, the R square value is 0.155, 0.145 and 0.088, respectively, and the significant value is more than 0.05, which indicates that impact of NPA is negligible, and there are other variables which have significant impact on the capital adequacy ratio of the respective banks. Therefore, null hypothesis is cannot be rejected.

The linear regression indicates the R square value of 0.773 and 0.830 for Bank of Baroda and Axis Bank, respectively. It implies that there is an impact of non-performing assets on the CAR but not significant because the significant value is above the level of significant (0.05), therefore, the null hypothesis cannot be rejected.

5. Discussions and Conclusion

Since the economic liberalisation, there has been a heated debate going on the non-performing assets of the commercial banks, particularly public sector banks. Commercial banks, either public or the private sector, show their reluctance to provide loans to priority sectors particularly agriculture because of in dilemma on full recovery and such non-recovered debt threatens the solvency position of the banks in the financial term the capital adequacy level. The particular research lightens that the capital adequacy position of the banks are not significantly impacted by the priority sector lending because the gross NPA of these sectors as a whole is always less than that of total gross NPA for the select banks. Although gross NPA of agriculture, in particular is significantly high, when it included as priority sector in general, it has no significant impact on the capital adequacy ratio of the banks.

The study found that the select commercial banks are far away and far better in fulfilling capital adequacy norms put forward by the BASEL-III Convention. It implies that country's banking industry is fundamentally strong enough to absorb financial crisis effectively. This

consistency in maintaining high capital adequacy ratio brings new hopes in liberalised lending towards priority sectors. So, the banks should assume their role in nation building by extending more advances to priority sector. Being a welfare state by directive principles, the socio-economic development of country particularly rural area have been the motto of administration. The concept of priority sector lending aims at the more inclusive and sustainable development. Finally the study concludes that priority sector lending should be encouraged and extended by assuming its implications on the socio-economic development of the country.

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Assessing the Necessity and Impact of Caste-Based Reservations among the Dravidians

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Abstract

In this study, the Dravidian community's need for and effects of caste-based reservations are investigated. Caste-based reservations, a measure put in place in India to rectify historical societal imbalances, have come under intense scrutiny and controversy. The Dravidian community, a sizable ethnic group in Southern India with a distinctive historical and social setting, is the subject of this study. This study's main goal is to determine if caste-based reservations are still required to solve socioeconomic inequities among Dravidians. To achieve this, a comprehensive analysis of the historical background, policy implementation, and current socio-economic indicators within the Dravidian community is conducted. The study identifies both positive outcomes, such as increased access to education and representation in government, as well as areas requiring continued attention, such as intra-caste disparities and the need for policy refinement. By examining the specific case of the Dravidians, this study contributes to a deeper understanding of the effectiveness and necessity of such policies in addressing historical social inequalities.

Keywords: **Ambedkar, Caste, Caste Reservations, Dravidians, Skilled workers**

JEL Classification Code: H10

1. Introduction

Tamil Nadu, a state renowned for its educational achievements and a thriving automobile industry, grapples with the deeply ingrained issue of caste discrimination, despite not prominently displaying caste names. The historical origins of the caste system in Tamil Nadu can be traced back to various influences, including the Dravidian civilization, Aryan migration, and colonialism. Over the centuries, this system led to the categorization of people into hierarchical social groups, determining their occupations and social standing. Historically, low-caste or Dalit communities in Tamil Nadu faced pervasive discrimination and violence, with practices like untouchability relegating them to the fringes of society. Despite efforts to combat these injustices, including the Dravidian movement, reservation policies, and the influence of Dr. B.R. Ambedkar, challenges remain. While progress has been made, it is essential to raise awareness, continue legislative reforms, and promote social equality to truly eradicate caste-based issues and foster a more equitable society in Tamil Nadu.

1.1 History

The caste system originated with the Aryans, who initially adhered to a four-tier Varna system. As they expanded into Dravidian territories, they forcefully imposed this hierarchical structure. Over time, this system gave rise to a group known as the Brahmins. During the Pallava period, between 200 and 900 CE, there was a significant influx of North Indian influence into Southern India, as a majority of Brahmins migrated southward and promoted Vedic learning. Between 200 and 100 BC, signs of social divisions were discernible in Tamil Grammar and classical poetry, particularly in the "Tolkappiym" (தொல்காப்பியம்), which classified people into four groups: ***Anthanars, Arasars, Vanikars,*** and ***Vellalars***. While these groups exhibit similarities to the earlier four-

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tier Varna system, it's important to note that they cannot be directly equated (Muthukumar, 2020).

In the Tolkappiyam (தொல்காப்பியம்), these groups are associated with professions rather than being solely determined by birth, and there are subtle distinctions to consider. For instance, the descriptions of Brahmins' involvement in secular employment, the possibility of individuals from other castes being warriors, and variations within the Vellalars caste point to a more flexible categorization. While these exceptions don't absolve traditional texts from their role in perpetuating casteism, they can be used to challenge individuals who manipulate tradition and religion to support caste-based discrimination. Moreover, Sangam literature, spanning from 400 BCE to 300 CE, documents the existence of at least 20 additional caste divisions native to Tamil Nadu, often based on similar customs or rural groupings. During the Vijayanagara Empire's reign from 1333 to 1646, new castes such as Kammas, Reddy's, and Naykas were introduced to Tamil Nadu. Even the Chola army itself had 98 castes categorized into two groups: Valangai (right-handed) and Idangai (left-handed), which were likely linked to specific professions (Muthukumar, 2020).

Subsequently, with the arrival of the British in India, the introduction of Christianity had a significant impact on the Hindu population. The British administration often favored high-caste individuals and Christians when it came to job opportunities, creating pressure on lower-caste individuals to convert to Christianity in pursuit of better prospects. This practice continued over time, and its effects are still observable today. However, it's important to note that while individuals from lower castes did convert to Christianity for social and economic reasons, many people have been hesitant to change their religious identity and have chosen to remain within the Hindu faith. This resistance to conversion persists even today (Muthukumar, 2020).

2. Review of Literature

Karthik and Vasanthakumar (2022). The study offers a clear and well-structured overview of the Dravidian movement's perspective on social justice in Tamil Nadu, emphasizing the inseparable link between economic and social justice, with a particular focus on caste inequalities as drivers of class disparities. It effectively underscores the pivotal role of Periyar E.V. Ramasamy in shaping these ideas and disseminating the Dravidian political ethos. However, the argument could be strengthened by providing concrete examples and statistical data to support claims about Dravidian party governments' approaches to affirmative action and their impact on development indicators in Tamil Nadu compared to other states. Nevertheless, this study provides a comprehensive introduction to the topic and Periyar's significant influence on the Dravidian movement's pursuit of social justice.

Lamba and Spears (2013). This research explores the complex interplay between caste dynamics and government sanitation policies in India, specifically within the context of Rajasthan. It examines the impact of caste-based reservations for village chairmen elected in 2005 on the likelihood of villages winning the Clean Village Prize by mid-2012. This prize, which rewards villages for eradicating open defecation, serves as an incentive for both latrine construction and usage. The study finds that villages randomly assigned a chairman from a Scheduled (low-ranking) Caste are less likely to win the prize, suggesting that caste-related factors may influence the success of sanitation initiatives. This research sheds light on the multifaceted challenges faced by government policies in addressing sanitation inequalities in India and underscores the significance of considering historical and sociocultural factors, such as caste, in the design and implementation of such programs.

Kumar (2022). This article critically addresses the complex landscape of affirmative action in India, specifically the caste-based reservation system, initially designed to uplift historically marginalized groups but now facing challenges that threaten its core objectives. It points out the disparities between the policy's intended purpose and its practical outcomes, highlighting attempts to undermine it by discrediting the policy, favouring economic-based reservations, and recent changes like the 13-point roster system and the introduction of EWS reservations. The article contends that these actions are detrimental to the principles of social justice and equitable representation, emphasizing the need for a comprehensive revaluation of the reservation system and a broader discussion on dismantling the caste system to ensure genuine social equality.

Rathod (2012). This study provides a brief overview of India's diverse society, highlighting its various religions, castes, and languages. It mentions the major religious groups, particularly Hindus and Muslims, as well as the traditional Varna system and its evolution into modern caste categories like Scheduled Castes, Scheduled Tribes, Other Backward Classes, and upper castes. The study acknowledges the prevalence of reservations in India as a significant social issue. The researcher has provided detailed analysis and data to support its claims and explore the broader societal implications of these caste categories and reservations.

Balgangadhara (2017). This excerpt challenges the conventional view of caste-based reservation as a socially just policy in India. The author's astonishment at this perception serves as a starting point for a critical examination of the topic, highlighting that some in the Indian judiciary, academic circles, and the Ambedkarite movement defend this policy on moral grounds. The reference to the Patel community's demands and the moral questioning of their legitimacy adds a contemporary dimension to the discussion. However, the excerpt does not provide a comprehensive analysis, and it is essential to consider various perspectives and empirical data for a more nuanced understanding of caste-based reservation's complexities and implications. Nevertheless, it offers a provocative glimpse into the ongoing debate surrounding this significant issue in Indian society.

3. Research Methodology

In this research, the researchers have utilized multiple combination of methods to explore the impact and importance of caste-based reservations in South India and conducted an analysis concerning people's backgrounds and incomes. Furthermore, the researchers have conducted interviews, surveys, and case studies (qualitative methods) to delve into the subject more deeply. Data was collected from various locations in South India in order to gain a comprehensive understanding of the topic, and obtained data from 32 individuals hailing from different regions of Dravidian land by utilizing Google Forms.

3.1 Research Objectives

1. To evaluate the historical context.
2. To measure the impact on marginalized communities.
3. To analyse the economic consequences.
4. To investigate the role of reservations in combating discrimination.
5. To assess potential drawbacks and challenges.

4. Data Analysis

4.1 Caste Discrimination

Caste discrimination persists in Tamil Nadu, particularly in rural areas, where individuals from higher castes typically inhabit the central portions of villages while those from lower castes are relegated to the outskirts. This division extends to everyday life, exemplified by the differentiation in teashops where lower-caste individuals receive plastic cups, as opposed to the glass cups given to their higher-caste counterparts. Additionally, seating arrangements in such establishments often segregate individuals by caste, with lower-caste individuals not allowed to share benches with higher-caste patrons. These practices underscore the enduring challenges of caste-based discrimination in the region, despite ongoing efforts to address and combat this deeply ingrained issue.



Source - https://tinyurl.com/2cjrmh2b

Figure 1. Discrimination in Caste.

In many urban areas of Tamil Nadu, statues of Dr. B. R. Ambedkar will be found enclosed within protective cages. This precaution is taken because, during demonstrations or conflicts, there is a concern that individuals from upper castes might vandalize or damage the statue as an act of protest. These protective enclosures are meant to safeguard the monument from potential harm. However,



Source - https://tinyurl.com/4bcpecp8

Figure 2. Dr. B. R. Ambedkar (caged).

in local neighbourhoods, where tensions may be lower, Dr. Ambedkar's statue stands freely without such protective measures.

Contrary to the perception that Tamil Nadu is a deeply caste-oriented state, it has a noteworthy history of social reform, and many prominent figures have actively protested against caste discrimination. Among these reformers, E.V. Ramasamy, widely known as Periyar, stands out as an influential figure who not only fought against caste discrimination in Tamil Nadu but also gained recognition in neighboring Kerala. Periyar's participation in the Vaikom Satyagraha, a movement aimed at challenging caste-based discrimination, earned him the title of the "hero of Vaikom." Importantly, Periyar's activism extended beyond caste-related issues; he initiated numerous reforms to advance the rights of women as well. His contributions have left a lasting impact, and his legacy extends well beyond Tamil Nadu's borders (HandWiki, n.d.).

4.2 Why Caste Discrimination?

The persistence of historic ideologies and practices related to caste in Tamil Nadu is a complex issue. While some individuals proudly embrace their historical roots, these connections can sometimes perpetuate harmful traditions, such as untouchability and caste discrimination, which persist in many villages and towns. Paradoxically, those who advocate for the abolition of such practices may still engage in them. This cycle of contradictory beliefs and actions has led to ongoing tensions and conflicts, and in some cases, it has even fueled caste-related riots and the spread of unfounded rumours. Addressing these deeply ingrained issues and breaking the cycle of caste discrimination is a crucial challenge that requires concerted efforts from both individuals and society as a whole.

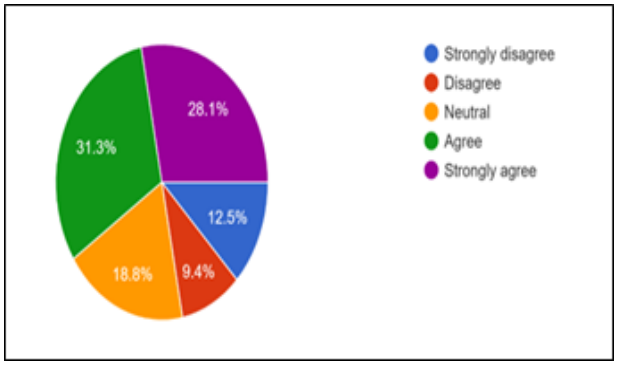
In Tamil Nadu, it's a common phenomenon to find caste-based organizations in every district, each dedicated to the welfare and upliftment of their respective caste members. While their stated objective is often to improve the living standards of their own caste, some of these organizations also engage in opportunistic activities, capitalizing on issues related to other castes to generate income. It's important to note that caste-related issues and conflicts are not exclusive to any one particular caste; both higher and lower castes can be involved in creating problems. For instance, some individuals from lower castes may engage in marriages with higher-caste individuals for financial gain, only to later divorce them or force them into unfortunate situations like involvement in the sex trade. These complexities highlight the multifaceted nature of caste dynamics and the need for comprehensive efforts to address caste-related issues and uplift marginalized communities.

4.3 Inequality based on Reservation

Caste-based reservations have long been a central element of India's affirmative action policies, with the overarching goal of rectifying historical injustices and advancing social equity. Nevertheless, these reservations continue to be a subject of intense debate. Supporters contend that they are essential for uplifting marginalized communities, while detractors raise concerns about their effectiveness and potential drawbacks. This research endeavours to offer a comprehensive evaluation of the importance and consequences of caste-based reservations in India, delving into the multifaceted aspects of this intricate matter. It aims to provide a nuanced perspective on the role of reservations in addressing historical disparities and fostering inclusivity within Indian society.

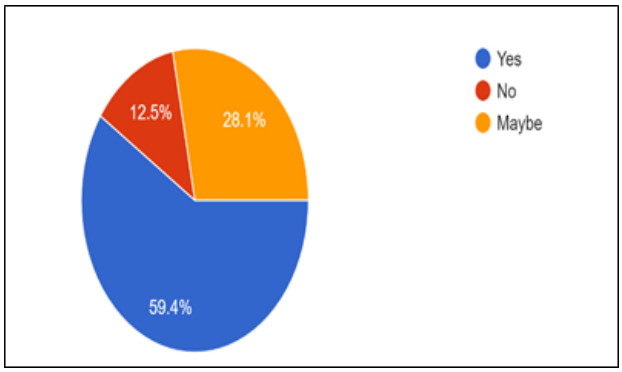
4.4 Caste Reservation

Racial or caste-based segregation is not necessary and is widely considered unjust. Reservations and affirmative action policies, such as those in the United States and India, aim to rectify historical injustices and promote



Source - Primary data

Figure 3. Opinions of the respondents towards facilitating reservations to people from all categories.



Source - Primary data

Figure 4. Response for the statement "Reservation neglects skilled workers".

social equity by providing opportunities to historically marginalized groups. While they are intended to be inclusive, debates persist, with critics expressing concerns about potential drawbacks, including the exclusion of talented individuals from other groups. The ultimate goal of these policies is to reduce social inequality, and ongoing discussions and reforms are essential to strike the right balance between addressing historical disparities and ensuring fairness for all.

In Figure 3, we can observe the breakdown of perspectives regarding caste reservations. When questioned about the accessibility of caste reservations, 59.4% of respondents favoured expanding them to encompass all sections of society, implying support for a broader application. Conversely, 18.8% of individuals maintained a neutral stance, suggesting satisfaction with the existing system. Meanwhile, the remaining 21.9% of participants advocated for a more selective approach, proposing that reservations should be restricted to those truly requiring them.

4.5 Negligence of Skilled Workers

The issue of caste reservations in India is a complex and contentious one. While the reservations for Scheduled Castes (SC) and Scheduled Tribes (ST) have been implemented to address historical injustices and promote social equity, there are valid concerns about whether these policies sometimes unintentionally neglect skilled individuals from other categories. Critics argue that such reservations can lead to individuals from other castes feeling unfairly treated or excluded from job opportunities. It's essential to have open and respectful discussions about these concerns to ensure that affirmative action policies effectively address historical disparities while also considering the needs and aspirations of all citizens. Balancing social justice with opportunities for all is a delicate challenge that policymakers and society as a whole need to address comprehensively.

Caste reservations have been a topic of heated debate in India for decades, with opinions divided on whether they neglect skilled workers or promote social equity. According to a recent poll, 59.4% of respondents believe that caste reservations do indeed neglect skilled workers, while 12.5% disagree. Another 28.1% remain undecided, highlighting the complexity of this issue. Many Critics argue that this can hinder the country's overall progress, as skilled workers may not receive the opportunities, they deserve solely due to their caste. Moreover, some believe that the quota system can lead to a sense of entitlement among beneficiaries, discouraging them from striving for excellence. This can create a paradox where well-deserving candidates are left out, and reservations end up perpetuating social divisions rather than eradicating them.

Caste reservation proponents assert that these measures are crucial for rectifying historical injustices and inequalities deeply ingrained in India's caste system, serving to level the playing field for marginalized communities. They argue that without such affirmative action, discrimination and disparity will persist, and reservations also promote diversity and inclusivity, fostering a more egalitarian society vital for India's social fabric and national unity. The 28.1% of undecided

respondents reflect the issue's complexity, highlighting the need to acknowledge reservations' shortcomings while recognizing their role in uplifting marginalized groups. Striking a balance that doesn't neglect skilled workers from non-reserved categories, while still addressing historical injustices, requires policymakers to regularly review and refine reservation policies, possibly integrating merit-based criteria to ensure opportunities for historically disadvantaged groups while not leaving behind skilled individuals.

5. Discussions and Conclusion

In conclusion, the research highlights the importance of caste-based reservations in India as a mechanism to address historical injustices and promote social equity. While these reservations have made significant strides in empowering marginalized communities, they also pose economic and administrative challenges that require careful consideration. Balancing the need for social justice with concerns about efficiency remains a delicate task, necessitating ongoing dialogue and policy adaptation to create a more equitable and inclusive society in India. Further research and policy innovation are essential to refine reservation systems and maximize their positive impact while minimizing potential drawbacks.

5.1 Suggestions to Overcome the Problems of Caste Reservation

6. The government must conduct regular survey to ensure that there is no exploitation of the reservation policies and ensure economically weaker sections are also benefitted
7. Educate people about the ill effects of caste discrimination.
8. Make sure we collect and share information about how well reservation policies are working.
9. Find a balance between giving opportunities to those who need them and picking the best person for the job.
10. Help people in many ways, like with their health, skills, and the places they live.
11. Ask politicians to work together and make sure the rules follow our country's principles.

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Book Review
A Ringside Seat to History, an Autobiography by Ambassador Alan Pascal Nazareth

Published by Konark Publishers Pvt. Ltd., New Delhi, Seattle
In the eyes of a Business Manager

- Reviewer: Sudhindra Gargesa

> *It was only after two years' work that it occurred to me that I was a writer. I had no particular expectation that the novel would ever be published, because it was sort of a mess. It was only when I found myself writing things, I didn't realise I knew that I said, 'I'm a writer now.' The novel had become an incentive to deeper thinking. That's really what writing is—an intense form of thought..."* **Don DeLillo, American novelist,**

American writer Eric Waugh says '*Don't give your opinions about Art and the Purpose of Life……. Give the relevant facts and let your readers make their own judgments. Stick to your story. It is not the most important subject in history but it is one about which you are uniquely qualified to speak*'. I feel Sri Pascal Alan Nazareth does just that in his autobiography A Ringside Seat to History'. While reading the book many historic events came to my mind back and forth. Be it His holiness The Dalai Lama, the formation of Bangladesh or a criminal fugitive Jayanti Dharma Teja, these were the instances I read as a schoolgoer. Begging to differ from Eric Waugh, all the musings in the book are a part of history we saw as youngsters.

Executives seldom see themselves as politicians or diplomats. Yet they have much in common. They have to negotiate and deal with diverse people, maintain good relationships with the media, build healthy interpersonal relationships and possess strong communication skills. To succeed they need to acquire skills and knowledge that go beyond technical know-how. Successful managers communicate effectively, understand power and lead their organizations successfully in the good and the bad times.

The learnings from reading books by diplomats or business managers can be summarized as seeking to equip one with skills, knowledge and values so that he/she can use the languages of 'feeling', 'meaning' and 'action' effectively.

Art Petty an executive and emerging-leader coach, author, speaker and workshop presenter in his article **'The New Model for Managers—Old School Diplomacy'** draws lessons from history to suggest a fresh model and set of skills based on old-school nation-state diplomacy. All these skills help today's business managers and organizational leaders find solutions for the challenges posed by different constituent groups in fast-changing business paradigms. He feels that in practice, great diplomats design solutions that recognise hard truths and strive to deliver what the constituents need. Both diplomats and business managers face tough contradictions. Strategic compromise is one of the tools, but there is no compromise in the objective.

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Alan Petty draws attention to The National Museum of American Diplomacy which identifies nine skill sets of effective diplomats:

1. Analysis (critical thinking)
2. Awareness (social, emotional, cultural intelligence)
3. Communication (from listening effectively to articulating with clarity)
4. Leadership (the ability to make tough decisions to move situations forward)
5. Collaboration (ability to create engagement and involvement)
6. Composure (self-management)
7. Management (bring ideas to life with and through others)
8. Innovation (generate creative alternatives)
9. Advocacy (represent their constituents)

While all experienced managers use these skills at varying levels, I believe that diplomats probably use the complete toolset in every engagement. They work tirelessly to hone these skill sets and the tools, in a right balance, for the situation.

Raj Bharti Founder and General Manager at Lastmile Leaders, an Amazon Logistics, in one of the articles shares the wisdom he got from Sri Shiv Rastogi on lessons from that talks of the 13 dimensions of foreign service officers like composure, cultural adaptability, experience and motivation. Information integration and analysis, initiative and leadership, objectivity and integrity, oral communication, planning and organising, quantitative analysis, reposefulness, working with others and written communication, can help business leaders in identifying a potential employee. These very qualities help the employee to deliver a stellar performance in the business arena. In my interaction with the author, I was able to identify probably all of these him and also in this book.

On the other hand, I was reading one of the sayings of Warren Buffet who says: *'If you lose dollars for the firm by bad decisions, I will be very understanding. If you lose the reputation for the firm, I will be ruthless.* So true for IFS officers! The author remembers Sri A N Jha ICS, who mentioned the quote of Winston Churchill who says on the tact required of a foreign officer ***'The art of telling a person to go to hell in such a way that he asks for directions to it'.*** In my own career, I have felt the importance of this tact many times.

Working in adverse conditions makes a diplomat and a business manager both tough and flexible. When he recollects the day on which China invaded India, I remembered my childhood as a school-going kid reading all the information made available in newspapers, who could not comprehend the realities of war, though I had heard of the aftermath of war from my father who was then serving in the Indian Army.

Jayanti Dharma Teja episode is one of the most interesting and classic cases of how persistent a diplomat needs to be to ensure the criminals however big they are and whatever their contacts be, a diplomat has to be tough and not lose sight so that they can be nabbed. Those were my high school days and we used to read in newspapers and periodicals. That he was a nuclear scientist, trained by Enrico Fermi and had also worked at CERN was what I learned from this book. I am also reminded of the instance, mentioned in this book, during the OIC meet of 1990, when the author foiled Pakistan's attempt to raise the Kashmir issue at the event and also countered the Saudi Foreign Minister on his remark on plebiscite Kashmir issue.

Being a diplomat is like the life of a wanderer. One could find himself or herself in an unenviable position like a business manager who is posted in new territory which he/she has to explore for opportunities. All the wisdom under '13 Dimensions' would be necessary. The author's experience in Myanmar (erstwhile Burma) and also in Ghana speak volumes on the travail a diplomat has to undergo. The author also recalls Admiral Katari, the then Indian Ambassador to Burma who brought in promptness, discipline, hard work and team spirit and believed that the *'strength of every*

chain lies in its weakest link'. The author also mentions that he realised the importance of Morale and teamwork in efficient functioning which is true of any organisation.

From wherever we may hail from, beliefs which we assimilate become a part of us. It is this cultural adaptation that makes one an effective diplomat or a business manager, who has to work in a multicultural environment catering to people of different continents. One has to work and communicate effectively and harmoniously with persons of other cultures, value systems, political beliefs, and economic circumstances; to recognize and respect differences in new and different cultural environments. The author's ringside experience of tree spirits who avenge themselves on those who disturb their abodes in old stately trees is akin to our belief in not cutting coconut trees. But the power of belief is unimaginable. We get a glimpse of this in Author's son miraculously recovering from a serious ailment and the role of his family's belief in the Almighty and faith in Saint Mother Teresa.

In Chapter 14, the author talks about Gandhian ideals and religious tolerance, which are of utmost importance to business managers more so in today's globalised work environment. Author's observation that religious tolerance advocated in India through age-old maxims ***Ekam Sat Vipra Bahudha Vadanti*** or ***Vasudhaiva Kutumbakam*** and resolution to send retirement years to promote Gandhian ideals are noteworthy.

The author recalls Prime Minister Shastri's visit to Rangoon, where while proposing a toast he says 'Your Excellency, India is the only country where water flows like Champagne' !!!! The author ensures the book has its own place for humour. Another instance that comes to mind here is the visit of Indian MPs, who were part of Indian delegates to UNCTAD, Santiago (Chile) during 1972, demanding *'idli vadas and poori bhaji'* for breakfast.

In recent times we have read about tracking economic offenders like Vijay Mallya, Nirav Modi and Mehul Choksey, but over five decades ago the author had done such a persistent investigation on Dr. Dharma Teja's case right from 1967 to 1970 when he was again arrested in London. He finally landed in Tihar Jail in 1972. The author recollects that Ambassador B K Nehru rightly called the author ***'Our James Bond'.***

Efforts for right communication to cull international press like New York Times which carried the article 'Ballots in India, Bullets in Pakistan' during December 1971, thereby clarifying India's position in the crisis in East Pakistan, now Bangladesh, were noteworthy. The tireless work of the author and his staff in Lima in upholding the reputation of the country in the face of the not-so-friendly International Press rightly deserves a salute.

The globalization of business compels negotiators to work harder at creating and sustaining long-term relationships with other companies. To do so, they must understand and manage the forces that diplomats, as international negotiators, have coped up with for centuries. The book gives us the author's contribution to promoting trade and commerce wherever he was deputed. Significant as I saw them were his efforts in 1972 in securing direct imports of Peruvian Copper to India (rather than via London) and import by Ghana in 1980 of 400 Tata buses despite stiff completion from Leyland/Neoplan buses of UK / Germany.

In his recall of his visit to Yugoslavia in 1975 as a member of a delegation led by Foreign Minister Sri. Y B Chavan, I pleasantly noticed this dynamic diplomat's humility where he says '*Never have I undergone such a radical image transformation from an indisciplined and wayward officer into a creative and dynamic one on this trip to Yugoslavia in January 1975, as a member of Foreign Minister Y. B. Chavan's delegation!*'

I had goosebumps reading his days during the coup in Ghana, in 1979, when Flt. Lt. Rawlings took over and subsequent events. My own experience of visiting Ghana in 1986 as an official of HMT International Ltd., was quite pleasant when I overstayed for one week after the expiry of my visa!

I could see that he had a very eventful stint at ICCR though initially, he voiced his displeasure to the Foreign Secretary He narrates many interesting events and a fascinating account of renowned artist M F Hussain's ICCR-sponsored

14-day visit to China from which he returned after just 24 hours bringing with him only a pocket book of sketches of China from which, in the next four months he produced forty paintings, with which ICCR organized an exhibition at Lalit Kala Akademi, which was widely acclaimed.

As a diplomat, one has to confront many people in positions in the country and overseas but has to ensure that the image of the country never gets tarnished on any account. The book is full of such a struggle and we see that the country's prestige was never compromised and he as a diplomat in the centre stage of events comes out unscathed.

The author weaves the events of history with his personal life effectively that, I was moved on quite a few occasions, be it the birth of his first daughter in Rangoon, his son in New York, his son Anand's sickness or of his personal tragedies which is the hallmark of a good author.

Another interesting episode author recollects is of Jawaharlal Nehru when the author met with, along with his batchmates, after selection for IFS said *'My young officers, you will often be told that diplomacy is all about going abroad to lie on behalf of your country. I want to assure you that India does not expect you to lie on its behalf. Don't ever tell a lie but always remember you have no obligation to reveal the truth!'* Good learning for the young IFS officer !!! and also for us Business Managers

Respect and deference are fundamental norms of international diplomacy. This trait of this diplomat author can be seen throughout the book. When a value-based right stand is taken, naturally everyone, irrespective of position, would support it. There are quite a few instances in the book to prove the point. I have experienced this and can vouch for this opinion.

This thoroughly enjoyable book makes a smooth reading with eye-friendly font and the author's simple but effective narration appeals to the reader's heart. With a lucid flow of narration, it was a ringside seat for me too as a co-traveller in this journey of Ambassador Alan Pascal Nazareth.

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Book Review
The Talent Management Handbook
Published by The McGraw Hill Education (India) Private Limited, Third Edition

- Reviewer: Hema Harsha

Irrespective of the timelines and the factors influencing various stages of the Industrial Revolution, people, especially talented and high-performing professionals have remained central to all successful organizations. Talent management has been a constant challenge for both business leaders and HR professionals. Like business strategies and plans, organizations prepare strategies and plans for talent management and today the success of an organization is accorded to effective implementation of talent management practices.

The book, "A Roadmap to Organizational Excellence – The Talent Management Handbook", Third Edition, published by McGraw Hill Education (India) Private Limited, is a comprehensive compilation of 55 thought-provoking papers on the various facets of Talent Management. The contributors are renowned professionals from various disciplines and functions of management which makes the book an interesting and intellectually stimulating read. The papers have been organized in a finely curated sequence to progressively lead the reader from the fundamentals of talent management in today's complex business environment to the impact and adoption of highly complex tools like Big Data, and other global trends.

Part 1, consisting of three well-researched papers dwells on how organizations need to plan on leveraging talent to build a high-performance organization. All three authors stress creating a blueprint of the organizational strategy to attract, retain and grow talent in an environment which entices them to partner with the organizations for a long time. The continuous loop of using talent management to build a high-performance workforce, which in turn creates a brand of the employer to attract more talent explains the continuum of efforts and investments in this direction with an action plan to translate strategies to results. With a step-by-step guide on how to implement strategies, this section lays the foundation in the reader's mind on why investing in talent management is a good option.

In Part 2, nine authors discuss about the building blocks of talent management. They weave a story around the various functions of traditional HR – competency assessment, performance appraisals and forecasting and their relevance in creating an environment conducive to nurturing talent in organizations. The authors have highlighted how innovative approaches to these traditional roles of HR can yield amazing results in a short duration. Using the case study of JP Morgan Chase Bank as an example, Roger Ferguson showcases the possibilities of using the concept of the "Big Five" in enhancing the performance management of employees within an organization. This section brings to the fore that a considerable chunk of time is consumed between the line managers who do employee appraisals and the HR department who review these appraisals to plan talent management strategies. A reading of Part 2 highlights the relevance and criticality of the involvement of senior management in driving these

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traditional HR roles which is evolving continuously by the influence of the new ways of working that are being experimented by the functional departments.

While Part 1 and Part 2 sets the tone of the subject from a strategic and planning perspective, it is Part 3 of the book that makes the reading interesting for those who are engaged in developing talent through their daily actions at the workplace. A major chunk of the book, with contributions by 22 authors, keeps the readers engaged with the operational details of how these strategic plans should be translated into operational plans. Four blocks – Talent Positioning, Talent Enhancement, Talent Mobility and Compensation, covers the entire spectrum of the Talent Management programs that organizations need to explore and exploit for unleashing the potential of their employee. This section discusses practical and hands-on strategies which provoke the thoughts of practitioners of all line functions.

Eight scholars discuss the role of Organizational Culture being a catalyst for enhanced talent management in Part 4 of the book. The workplace has undergone a sea change with traditional management styles being replaced with flexible and adaptive styles of management. Their contributions of effort and intellectual prowess being guaranteed for organizational growth, and the spectrum of expectations of the employees has spread out far beyond the remuneration part. Organizations have a new challenge of systematically creating a culture which engages a workforce which comprises of Gen X to the Millennials and assures them that their expectations are part of the organizational growth strategies. This section highlights the painstaking efforts that need to be put in by all stakeholders and the consistency of actions in demonstrating that values are embedded in the DNA of the entire hierarchy of governance and management levels. With women making up for a considerable chunk of the workforce, the views of Nila G Betof and Molly Dickinson bring to the fore the necessity of a special focus on promoting diversity as part of the organisational culture. Data-driven arguments justify their case for creating an inclusive workplace to encourage women to be a part of organisational transformation.

Geographic boundaries no longer being a barrier in the new order of the workplace, acquiring and leveraging talent from all nooks and corners of the world is an option which organizations explore. In Part 5 of the book, two authors dwell on the aspect of Global Talent Management. The movement of employees across countries as a strategy to retain a lean but effective workforce is common amongst companies that have their presence in multiple geographies. Bridging the expectations of employees from different geographies which is influenced by a multitude of factors, comes with a unique set of challenges that needs special attention. Derrick Kon presents a case for the necessity of a special focus on developing competencies of select high-potential employees and enabling them to go global from local.

Data-driven decision-making being the trend with the advent of Machine Language and Artificial Intelligence as an enabler, five authors make a case for adopting Big Data into the talent management function in Part 6 of the book. Though the cases are strong, financial commitments to build the infrastructure for data management are a challenge that organizations will have to overcome. The unbelievable speed at which new technology is penetrating all domains, it is but a matter of time that HR functions also must be enabled to keep pace with other departments of the organisation.

Part 7 of the book singles out the necessity of talent management of the leadership teams and other professionals within the organisation. Three intriguing papers justify why leadership teams need special focus and a different approach to develop and manage talent at this level of organization. Leadership teams being the vital link for channelising the efforts of the masses to achieve organizational goals, strategies need to be more personalised to fuel this community.

In the last section of the book, three authors discuss the latest trends in talent management practices across the world. Jacob Morgan's deep dive into a select list of eight trends summarises the real-world challenges that are universal and impact all organizations without any exceptions.

To sum up, this book is a comprehensive guideline for understanding the theoretical concepts, challenges for Talent management practitioners, and case study discussions on the future of Talent management in the disruptive environment of business. It is a must-read not only for HR practitioners but for all who are responsible for managing teams and individuals interested in building their own capabilities. The COVID pandemic has brought to the fore that effective management of talent is the key even to the very survival of organizations, and talent undisputedly surfaces as the game changer in the quest for the journey of exponential growth.

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Book Review
Marketing Management
By Philip Kotler, Kevin Lane Keller, Alexander Chernev, Jagdish N. Sheth, G. Shainesh

Published by Konark Publishers Pvt. Ltd., New Delhi, Seattle

Reviewer: S. Sathyanarayana

"Marketing Management" by Philip Kotler is an iconic and seminal text in the field of marketing. This book has been a cornerstone for marketing students, professionals, and academics for many years, and for good reason. Kotler's writing is not only comprehensive but also incredibly lucid and accessible. He breaks down complex marketing concepts into easily digestible pieces, making it an ideal resource for both beginners and experienced marketers. One of the key strengths of the book is its holistic approach to marketing. Kotler covers all aspects of marketing, from the foundational principles to the latest trends and strategies. This makes it a valuable resource for anyone looking to understand the full scope of marketing in the modern business environment.

Kotler's emphasis on the customer-centric approach is particularly noteworthy. He stresses the importance of understanding and meeting customer needs and wants, which is fundamental in today's highly competitive marketplaces. The book is also known for its practicality. Kotler provides numerous real-world examples and case studies that illustrate how marketing concepts can be applied effectively. These examples help readers, bridge the gap between theory and practice.

Additionally, "Marketing Management" is updated regularly to reflect the evolving marketing landscape. This ensures that readers stay current with the latest marketing trends, digital strategies, and technological advancements. Philip Kotler's "Marketing Management" not only provides a comprehensive overview of marketing but also delves deeply into the critical aspects of Segmentation, Targeting, and Positioning (STP). These concepts are the bedrock of effective marketing strategy, and Kotler elucidates them with great clarity.

Segmentation: Kotler's approach to segmentation is pragmatic and insightful. He emphasises the need for businesses to divide their market into distinct segments based on characteristics such as demographics, psychographics, and behaviour. His explanations of segmentation methodologies are thorough and practical, making it easier for marketers to identify their target audience.

Targeting: Kotler delves into the art of selecting target markets once segments have been identified. He underscores the importance of evaluating the attractiveness of each segment and a company's ability to serve it effectively. His insights on choosing the right target audience are invaluable, helping marketers make informed decisions that maximise their resources.

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Positioning: Kotler's treatment of positioning is exemplary. He stresses the significance of crafting a unique value proposition that resonates with the chosen target audience. He provides numerous case studies that demonstrate how successful brands have positioned themselves effectively in the minds of consumers, highlighting the impact of positioning on brand perception and competitiveness.

Furthermore, "Marketing Management" does not just stop at theory; it guides readers through practical applications. Kotler offers guidance on developing marketing strategies, creating marketing plans, and executing marketing campaigns that align with the STP framework.

The book also addresses the critical process of new product launch. Kotler's insights into product development, pricing, distribution, and promotion during the launch phase are invaluable. He emphasises the need for a well-structured and coordinated launch strategy that capitalizes on market opportunities and minimises risks.

In conclusion, Philip Kotler's "Marketing Management" is not merely a textbook; it is a holistic guide that covers the entire spectrum of marketing, from fundamental principles to advanced strategies. Its lucid explanations, focus on STP, and detailed insights into new product launches make it an indispensable resource for marketers aiming to navigate the complexities of the modern business landscape effectively. Whether you are a student, a seasoned marketer, or a business leader, this book offers a treasure trove of knowledge and practical guidance for success in the world of marketing.

MPBIM Placements

'Industry-Institute-Interaction' is not a mere 'jargon' at MPBIM; it assumes a greater significance from day one of the MBA Programme. The Institute lays utmost emphasis in orienting the Student Executive towards the practical days ahead of their academic learning. Industry Seminars are conducted by the Institute that see active participation and give MPBIM students the opportunities for useful interaction with Industry Executives. MPBIM wants strong relationships with the Industry and believes in fostering Corporate Relations. The results of this strategy have paid off through rewarding positions offered to MPBIM Graduates.

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- Accenture
- Aditya Birla
- Airtel
- Alleergan Global
- amazon.com
- ANSR
- ANZY Careers
- APC
- Apps World
- Asian Paints
- AV Technologies
- Axis Bank
- Bajaj Allianz
- Bandhan Bank
- Berger Paints
- Bonanza Portfolio Ltd.
- Brigade Group
- Bridge People Technology
- Britannia
- Byju's
- Canara Bank
- Capgemini
- Careernet Consulting
- CavinKare
- Century Ply
- Cisco Webex
- Citi Bank
- City Union Bank
- Coface India
- Clover Mark
- Connect M
- Creative Media Pulse
- Cognizant Techlonogies
- Deccan Airways
- Delloite
- Deutsche Bank
- DSL Software
- Edelweiss Broking
- Edelweiss Financial Services
- Edgeinfosys
- Ernst & Young
- EDUREKA
- Exide Industries Ltd.
- Fab Hotels
- FACE
- Garuda Group
- GE Capital
- Genesys Software
- Ginger Hotels
- Goldman Sachs
- GSS Infotech Ltd.
- HDB Financial Service
- HDFC AMC
- HDFC Bank
- Hewlett Packard
- Hindustan Unilever
- HireCraft Software Pvt. Ltd.
- Hindustan Coca Cola
- Home First Finance Co. Ltd.
- ICICI Bank
- ICICI Prudential
- ICICI Securities Ltd.
- IDBI
- IDBI Fortis
- IFB
- IFB Automotive Systems
- Institute of Directors
- Intellipaat Software Solutions Ltd.
- IMRB
- India Mart
- Indian Rayon
- Indus Ind Bank
- Infosys
- ITC Infotech
- Jeevansathi.com
- J P Morgan Chase
- JARO
- Just Dial Ltd.
- Karvy
- Kotak Wealth Management
- KPMG
- Kritikal Solutions
- LG Soft India
- Magnasoft
- Metro Cash & Carry
- MICO
- Multyfonds
- Mitraz Financial Services Ltd.
- Myntra
- My Landmark
- Naukri.Com
- Northern Trust
- OCWEN Financial Services
- Oracle Software Co.
- OTIS
- Odessa Technologies
- OYO Rooms
- Practo Technologies
- Phoneix Market City
- Portea Medical
- Property Pistol
- Quadrangle
- QUEST
- Ramco Industries Ltd.
- Readiminds
- Reckitt Benckiser
- Red Apple
- San Infrastructure Pvt. Ltd.
- SBI Life Insurance
- Shyamrao Vittal Co-op Bank
- Siemens
- Samilabs
- Surya Software Systems Ltd.
- Societe Generale
- Saint Gobain
- Square Yards
- Target India
- TAO (The Automation Office)
- TCS
- TESCO
- The Laureate Global
- Thomson Financials
- Thomson Reuters
- Toyota Kirloskar Motor
- TTK Prestige
- Tyco Electronics
- Vijaya Bank
- VXL Instruments
- V2 Engineers
- Way2Wealth
- Wellnest India Projects
- Wenger & Watson
- XL Dynamics
- Zovi.com
- Dynamics
- Mozohunt
- Magnik India
- Insplore
- Skill Vertex
- RKV Cargo
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- BIZLOG
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