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## **A STUDY ON THE IMPACT OF WORKPLACE DIVERSITY ON EMPLOYEE PERFORMANCE IN THE HOTEL INDUSTRY IN KERALA**

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### **ABSTRACT**

This study attempts to look into how employee performance in Kerala's hotel business is impacted by workplace diversity. The presence of workers from different backgrounds, including age, gender, ethnicity, religion, and educational attainment, among others, is referred to as workplace diversity. Due to the presence of personnel from various regions and cultural backgrounds, Kerala, a well-known tourist destination in India, is distinguished by a diversified workforce. To increase the overall effectiveness and competitiveness of the sector, hotel managers and legislators must fully grasp how workplace diversity affects employee performance.

This study employs a mixed-methods research design, incorporating both quantitative and qualitative data collection methods. The quantitative phase involves distributing a structured questionnaire to a sample of hotel employees in Kerala, followed by statistical analysis to examine the relationships between workplace diversity and employee performance. The qualitative phase involves conducting in-depth interviews with a selected group of employees and managers to gain deeper insights into the perceptions and experiences related to workplace diversity and its impact on performance.

The findings of this study will contribute to the existing body of knowledge on workplace diversity and employee performance in the hotel industry. It is hypothesized that workplace diversity positively influences employee performance by fostering innovation, creativity, and problem-solving abilities. Additionally, it is expected that diversity management practices, such as inclusion, equal opportunities, and cultural sensitivity, will mediate the relationship between workplace diversity and employee performance.

The practical implications of this study are significant for hotel managers in Kerala and other regions with similar characteristics. The findings will inform human resource management strategies aimed at promoting diversity and inclusion in the workplace, ultimately enhancing employee performance and organizational outcomes. The study's limitations include the focus on the hotel industry in Kerala, which may limit generalizability to other industries and regions.

In conclusion, this study seeks to shed light on the impact of workplace diversity on employee performance in the hotel industry in Kerala. By examining the relationships between workplace diversity, diversity management practices, and employee performance, this research aims to provide valuable insights and recommendations to enhance the effectiveness of diversity initiatives in hotels and improve overall performance in the industry.

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**Keywords** *Workplace diversity, Employee performance, Effectiveness and competitiveness of the industry, Hotel industry in Kerala.*

## **INTRODUCTION**

Workplace diversity has become a key component of organisational dynamics in today's globalised and interconnected world. Organisations in a variety of industries are realising the value of a diverse workforce that includes people with varying backgrounds, ethnicities, and life experiences. Because it serves a varied spectrum of consumers with varying preferences and needs, the hotel business, in particular, benefits from diversity. Therefore, developing a competitive edge and achieving organisational success depend on an awareness of how workplace diversity affects employee performance in the hotel business.

Kerala, a state in southern India, is well known for its strong tourism industry, stunning natural surroundings, and rich cultural legacy. Kerala's hotel industry is highly diverse as a result of the state's prominence as a travel destination and the influx of tourists from all over the world. The staff at hotels is diverse in a number of ways, including age, gender, ethnicity, religion, educational background, and language. It offers a singular chance to investigate the link between workplace diversity and worker performance in a particular setting.

The purpose of this study is to investigate how workplace diversity affects workers' performance in Kerala's hospitality sector. Productivity, job happiness, motivation, teamwork, and customer service are just a few of the many factors that make up employee performance. This study looks at how workplace diversity affects key performance indicators in an effort to shed light on the dynamics of diversity management in the hotel sector.

The results of this investigation will have ramifications for theory and practice. It will add to the body of knowledge already in existence regarding the connection between workplace diversity and worker performance, notably in the context of the hotel business. This study intends to close a knowledge gap and lay the groundwork for further research in this area by experimentally examining the effect of diversity on performance. The findings of this study will provide hotel managers and policymakers in Kerala with useful practical advice. Understanding the benefits of workplace diversity and putting these tactics into practice can improve staff productivity, boost client happiness, and improve organizational outcomes overall.

This study will use a mixed-methods approach to accomplish its goals. To fully understand the connection between workplace diversity and employee performance, both quantitative and qualitative data collection techniques will be used. While the qualitative phase will involve conducting in-depth interviews with chosen employees and managers, the quantitative phase will involve polling a sample of hotel employees. In conclusion, this study aims to investigate how

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workplace diversity affects workers' productivity in Kerala's hotel sector. The study seeks to advance theory, offer managerial applications, and emphasize the value of diversity management in the hospitality sector by examining this link.

### **REVIEW OF THE LITERATURE**

According to (Dhanabhakym, 2023) culture is the predefined value, belief, or idea that an individual has for himself. A person's culture affects how he or she behaves, interacts, responds, or even uses language in a given circumstance. Every individual has a unique way of expressing his or her culture. Every person's culture is constrained by his or her environment, including his or her parents, siblings, friends, or peer groups, mentors, neighbours, society, and even his or her nationality. 2022 Manoharan explains how globalisation and the steadily expanding information technology industries have caused a dramatic change in the corporate landscape. In addition to altering the connection between employers and employees, it has also changed how business is conducted and people's expectations and views. The ultimate objective of the study, according to (P B Narendra Kiran, 2023) is to better understand how diversity in the workplace affects productivity, motivation, and innovation, as well as how these elements may be controlled through HR policies and practises. According to the theoretical framework of the study, which is supported by the social identity theory and the contingency theory of human resource management, employee diversity may have either positive or negative consequences on an organisation, depending on how it is managed. According to (Golung, 2023) human resources in this case refer to employee performance, which is capable of utilising the company's or organization's resources at the beginning of the planning, leading, organising, and controlling stages of management. The workforce. The workforce has a lot of possibilities for managing corporate operations. An organization's or company's existing human resources must be used to their full potential in order to produce the best results possible. This can be done in a number of ways, including through education, training, providing adequate compensation, creating a conducive work environment, and organisational culture. According to (Achmad, 2016), employees' poor performance is caused by less competent staff members, or, to put it another way, staff members who have certifications but are not fully competent in their fields. It is also caused by staff members' low motivation to provide excellent customer service, as well as a poor organisational culture. According to Reidhead (2020), a company's people resources are crucial to its long-term survival and performance in the hospitality sector. Establishing the kind of organisational culture that would enable effective human resource management has grown in importance in recent years. In order to maintain a strong position in the market, it is now crucial to create a supporting organisational culture. It is important to build that organisational culture,

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through which the company can offer the most assistance and continual improvement. Any organisation would not be able to properly accomplish its aims through the labour of a single or small number of employees (Alsheikh, 2017). In other words, successful performance requires that all employees perform well. Companies must be aware of the different dimensions of performance in order to understand how they affect strategy and goals. According to (Awadh, 2018), organisational development contains a few elements that, when used effectively, enhance sustainability. Employee commitment increases as productivity rises because norms, values, and goals contribute to an organization's improved culture. The foundation of the organisational structure was the successful creation of a culture that supports a positive learning environment. Employee performance is enhanced by the creation of strong. According to (Nozariyanti, 2019), encouragement has a crucial role in motivating people to do their best work. Employee performance can be realised in accordance with organisational goals if each job is managed optimally. Employees that lack motivation find it difficult to perform their jobs effectively. If there is self-motivation and support from others, employee performance can be attained. According to (Usman, 2019), an organization's work culture should promote quality and efficiency in all areas of development, planning, production, and service. Work culture is simply described as a person's perspective on what gives work significance. Among other things, the following are examples of actualization of work culture: Understanding what work entails; Attitude towards work or what is accomplished; Attitude towards the workplace environment;; g) Behaviour when working or making judgements; d) Attitude towards time; e) Attitude towards the tools used for work; f) work ethic. According to (Setini, 2020), human resources help other resources work together in a synergistic way to achieve organisational goals, hence without human resources, other resources would be idle and less valuable in attaining organisational goals. Banks will be successful if they insist that staff go above and beyond the call of duty and are ready to perform above and beyond expectations. Organisations are created as a result of a group of persons and a group of actions, claims Endri (2021). These views, norms, and values cannot bind a group of people who engage in these activities together if they have divergent beliefs, norms, and values. Consequently, it's important to recognise to overcome external adaptation and internal integration, a fundamental premise must be found and presented to new members as the proper framework for perceiving, considering, and experiencing these issues.

## **OBJECTIVES**

The following goals are intended to be accomplished by the study on the effect of workplace diversity on employee performance in Kerala's hotel industry:



1. To assess the extent of workplace diversity in Kerala's hotel sector and determine and examine the age, gender, ethnicity, religion, and educational background of the workforce.
2. To measure the following personnel performance indicators: output, job happiness, drive, cooperation, and customer service.
3. To investigate the link between workplace diversity and productivity among employees
4. Examine the role of diversity management practices, such as inclusion, equal opportunities, and cultural sensitivity, in mediating the relationship between workplace diversity and employee performance.

### **RESEARCH METHODOLOGY**

The research approach used to examine how workplace diversity affects employee performance in Kerala's hotel sector is described in this section. To gain a thorough grasp of the phenomenon under inquiry, a mixed-methods research strategy that combines quantitative and qualitative methodologies will be used.

**Research Approach:** The research will be conducted using an exploratory sequential design, where the quantitative phase comes first. This design enables preliminary investigation and quantification of the link between workplace diversity and worker performance, followed by extensive qualitative research to learn more about the opinions and experiences of workers and managers.

**Phase quantitative:** a. **Sample selection:** Purposive sampling are used to choose hotel staff from a variety of hotels in Kerala. The sample will be representative of many demographic characteristics, such as age, gender, ethnicity, educational attainment, and job functions. a. **Data Gathering:** Based on pertinent literature and prior research, a structured questionnaire is created. The survey gauge factors such as team relationships, employee performance, diversity management strategies, and workplace diversity. The pie chart is used to analyze data.

**Integration of Findings:** To provide a thorough knowledge of the influence of workplace diversity on employee performance, the quantitative and qualitative findings will be combined. While the qualitative insights will enliven and contextualize the quantitative findings, the quantitative discoveries will provide statistical proof.

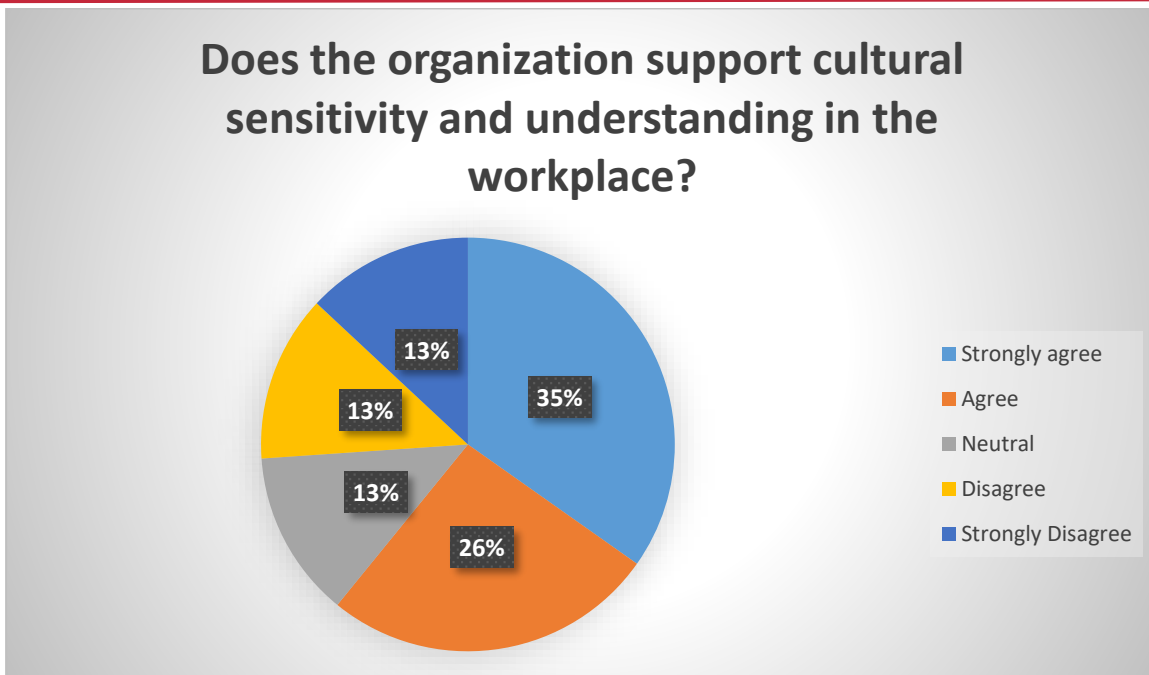
30 questions were condensed into 5 questions, 115 employees were chosen for the study, and analysis was performed.



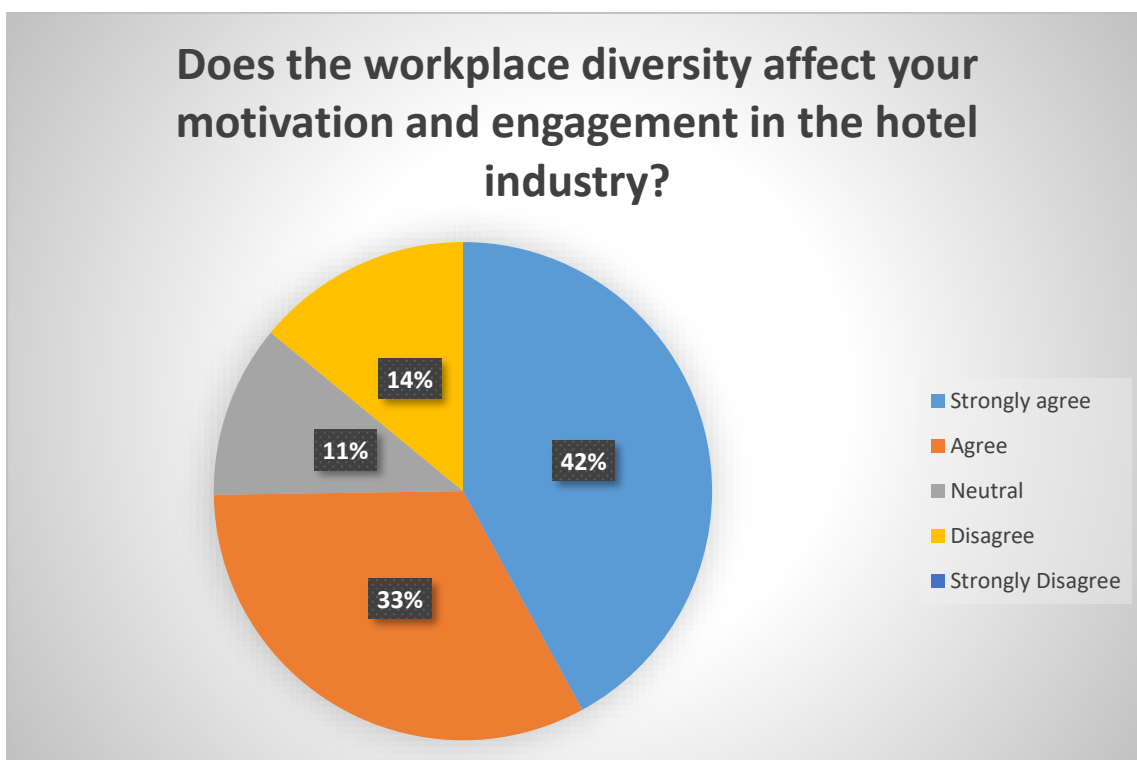
When asked how their hotel's staff members felt about diversity, 31% of the employees agree with this and 27% strongly agree, 18% of the employee disagree with this, 14% remain neutral and 10% seem to be strongly disagreeing with this.



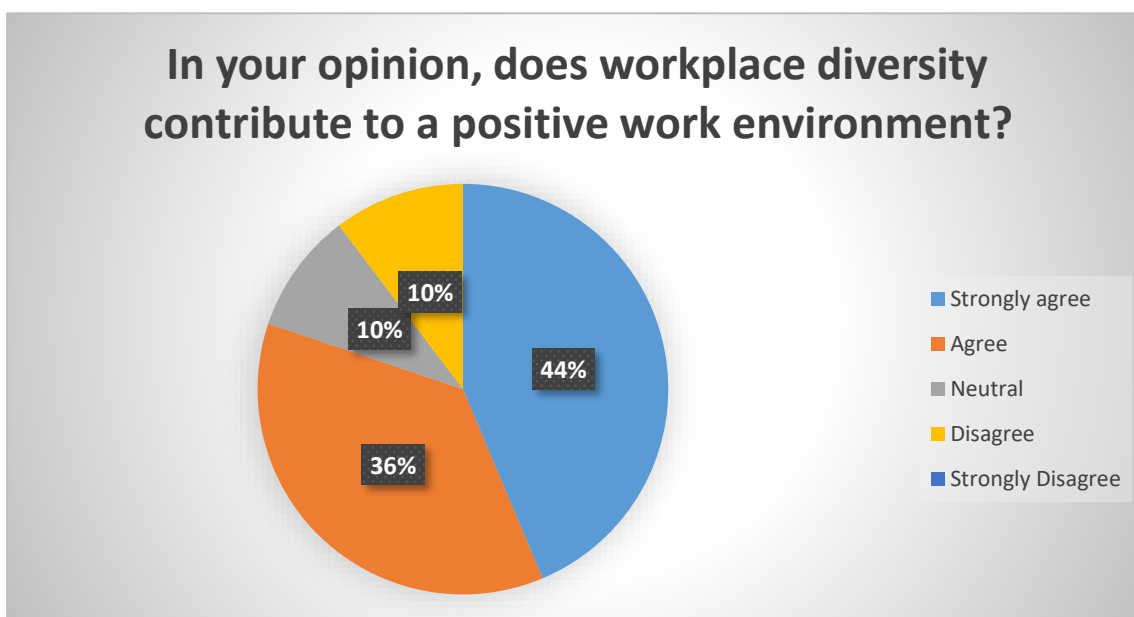
Here we see that 32 % of the employees agree that they believe workplace diversity positively influences job performance 29% strongly agree, 16% disagree, 14% are neutral 9% of the employees completely disagree with this notion.



Does the organization support cultural sensitivity and understanding in the workplace? This question was responded to by the employees with 35% strongly agreeing, 26% agreeing, 13% remaining neutral, 13% disagreeing and 13% of the employees completely disagreeing with this idea.



Does workplace diversity affect your motivation and engagement in the hotel industry? Here 42% of the respondents strongly agree, 33% agree, 11% are neutral and 14% disagree with this impression.



In your opinion, does workplace diversity contribute to a positive work environment? Here 44% of the employees strongly agree, 36% agree, 10% disagree and 10% remain neutral to this belief.

### **RESULT AND ANALYSIS**

These numbers show that most workers have a favourable opinion of workplace diversity, strongly agreeing or agreeing that it fosters a positive work environment. This shows that a sizeable section of the workforce is aware of the advantages of workplace diversity.

Few employees, on the other hand, have a negative opinion and contest the idea that diversity at work improves the workplace. To better grasp their differing viewpoints, it would be beneficial to look into (GAP) the causes of their disagreement.

The remaining certain percentage of employees remain neutral, indicating that they neither agree nor disagree with the belief that workplace diversity contributes to a positive work environment. It could be beneficial to explore their reasons for neutrality as well. (GAP)

Overall, the analysis highlights that a majority of the employees have a positive perception of workplace diversity and its impact on the work environment. This finding suggests that fostering diversity within the organization may be beneficial in creating a positive and inclusive workplace culture. However, further investigation and qualitative data may be necessary to fully understand the nuances and reasons behind these perspectives.

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## CONCLUSION

The study on the impact of workplace diversity on employee performance in the hotel industry in Kerala sheds light on the relationship between these two important factors. By examining the level of workplace diversity, assessing employee performance dimensions, exploring the relationship between workplace diversity and employee performance, identifying mediating factors, and analysing the experiences and perceptions of employees and managers, valuable insights have been gained regarding the impact of workplace diversity on employee performance in the hotel industry in Kerala. The findings of this study reveal that workplace diversity positively impacts employee performance in the hotel industry in Kerala. Employees from diverse backgrounds foster innovation, creativity, and problem-solving abilities within the workforce. It promotes a dynamic work environment that embraces different perspectives, leading to improved performance in various dimensions such as productivity, job satisfaction, motivation, teamwork, and customer service.

The study also highlights the crucial role of diversity management practices as mediating factors in the relationship between workplace diversity and employee performance. Inclusion, equal opportunities, and cultural sensitivity play a significant role in leveraging the benefits of workplace diversity and maximizing employee performance. Effective diversity management strategies, such as promoting diversity training programs, establishing diverse recruitment and retention practices, and creating an inclusive work culture, are recommended to optimize the impact of workplace diversity on employee performance.

The experiences and perceptions of employees and managers further underscore the importance of workplace diversity. Employees value the diverse work environment as it enhances their job satisfaction, engagement, and personal growth. Managers acknowledge the positive contributions of workplace diversity in improving employee performance and recognize the need for effective diversity management practices to fully harness its benefits. In conclusion, this study emphasizes the significance of workplace diversity in influencing employee performance in the hotel industry in Kerala. The findings contribute to the existing body of knowledge by providing empirical evidence and practical insights for hotel managers and policymakers. By embracing workplace diversity and implementing effective diversity management practices, hotel organizations in Kerala can create a more inclusive and dynamic work environment that fosters employee performance, ultimately leading to improved organizational outcomes.

It is recommended that future research continues to explore the impact of workplace diversity on employee performance in different industries and regions, considering specific contextual factors that may influence the relationship. Additionally, studying the long-term effects of workplace

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diversity and examining potential challenges and barriers associated with its implementation would further enhance our understanding and inform effective strategies for managing diversity in the workplace

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## A STUDY ON THE GROWTH AND POPULARITY OF BLEISURE TOURISM AMONGST CORPORATE EMPLOYEES IN INDIA

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### ABSTRACT

Bleisure trip is a term used to describe trip which combines rudiments of both business and rest. It generally takes the form of business trippers extending the duration of their trip, in order to enjoy rest conditioning, which may range from sightseeing and relaxation, through to hiking, visiting entertainment venues, or attending events. Bleisure trip is where workers go for business passages and combine them with rest time. The business passages are turned into recesses. Bleisure has come a life in recent times for utmost workers due to colorful reasons. This paper tries to find out the reasons for the fissionability of bleisure trip amongst the commercial workers and their anticipation from bleisure tourism.

**Key words** *Bleisure tourism, Explanation of the concept, Corporate Employees, trend, Travelers*

### INTRODUCTION

Bleisure is a type of trip trend urged by the combination of two general trip types, Business and rest (Bleisure). Bleisure is frequently new to a casual trip trend and has given rise to a misconception of millennials using Bleisure as a reason to go on holiday at the company's expenditure which as per the check isn't the verity, actually, Bleisure is encouraged by companies and is all about coupling work and rest hours to avoid stress, and save plutocrat and time. According to a check conducted by Bridge Street Global Hospitality, 60 per cent of trippers reported having taken Bleisure passages, with 30 per cent adding at least a day to their trip for rest. Numerous companies are embracing this new trip trend to motivate their workers by making a business trip more stress-free.

An emulsion of the terms "business" and "rest," bleisure is the miracle of adding rest or particular time to a business trip. Bleisure, one of the hottest business trip trends, can add a whole new element of particular trip to a business trip. Suddenly, traveling for work is not so bad. The rise of bleisure trip has changed the geography of business trip for workers, companies, and trip operation tools. Before diving into these changes, it's important to define what bleisure isn't in addition to what it is. Bleisure doesn't mean to scip out meetings for sightseeing or fun and games and expenditure particular time to the company. It also isn't a reason for expensing particular time for payment from your company.



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Bleisure is adding time on a trip for particular use and is paid for by the rubberneck. One should always check with the company's policy regarding added time before turning one of your listed business scores into a bleisure trip. In reality the bleisure trippers are helping numerous workers to save their plutocrat. They're also suitable to turn the trip into a pleasurable stay. Through these peregrinations, workers are given an occasion to make recollections together with the people they love. Largest chance of the bleisure trippers are workers between the periods of forty- five and fifty times old. Still, these days' effects have changed. The largest group that has come bleisure trippers is the youthful workers of 25- 35 times. These workers are assumed to be " digital" with a business-mixed- with- pleasure mind. Employers are offering them the chance to learn new effects while they're still young. These youthful workers are advised to schedule working hours and rest time However, they can find themselves spending a whole weekend having fun and also fail to prepare the report they're supposed to present at a meeting on Monday morning, if they aren't careful. That quick shift from rest to work can lead to stress. To avoid this, insure this youthful worker should have a good plan before you go for the trip.

### **OBJECTIVES OF THE STUDY**

1. To find out the popularity ratio of bleisure in the tourism sector.
2. How bleisure effects the employee's performance.
3. To find out, how the bleisure travel is on a boon.
4. To do a cross- sectional analysis.
5. To find out, what the corporate employees are expecting from a bleisure travel

### **NEED OF THE STUDY**

Through this study we will be able to find the preferences of the corporate employees, on what kind of travel that they are preferring more, this study's aim is to fill the evidence gap, which other research scholars are confused that they often can't prove out the essential information of the analysis, but through this peer reviewed information. We have done a cross sectional – analysis, which will fill the gap as this will be very helpful for the organization to know the preferences of their employees.

### **THE CONCEPT OF BLEISURE TOURISM**

Bleisure travel is a growing market segment in the travel world. A combination of business and leisure travel, bleisure travel blends the worlds of work and play Travelers in the bleisure market often add additional nights to their overnight business trips, using the extra time to enjoy leisure activities while they're out of town.

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### **Bleisure travellers choose to extend their stays for a variety of reasons**

- Visit friends and family in the area
- Experience local culture, cuisine or attractions
- Attend area festivals, tournaments and other events
- Explore outdoor recreation opportunities
- Enjoy a little peace and quiet or alone time

Whether it's to check out a concert, hike a gorgeous mountain, or simply get some alone time, extending business travel for pleasure works for workers' schedules as well as their wallets. For many, adding a mini-vacation at the end of a business trip is more affordable than trying to book separate holiday-only travel. Often, bleisure travellers take advantage of unused vacation days at the end of a work trip for a long weekend of fun

- Group business travel (e.g., conferences, conventions, etc.) accounts for 43% of bleisure travel.
- Sales trips account for around 9% of extended bleisure stays.
- 24% of bleisure tourists are travelling for off-site team events.

A lot of solo bleisure travel revolves around relatively infrequent events. Annual conferences, for example, only take place once a year and may be the traveler's only opportunity to experience the destination. This occasional travel inspires guests to spend additional time in their destination to take in all it has to offer.

### **How employers can take advantage of this rising trend**

It's apparent that bleisure peregrination have further advantages than disadvantages. They help workers to gain balance between work fulfilment and particular enhancement at the same time. They no longer have to immolate their rest to be successful in their work. All employers should, thus, take advantage of this trend. They need to unite with trip operation companies and hospices. Utmost of the trip companies will offer abatements for the business trippers who are carrying their loved ones to the trip. Once they arrive at your destination, the trip companies always give brilliant ideas on how to spend your free time after you're done with your work.

Also, they can make table reservations for the workers at the stylish cafés and. It means that the workers and their heads can have peace of mind in a new megacity knowing that everything has been taken care of. After all, proper planning ensures that everything falls into place. As ticket prices have reduced over the once times employers cannot, thus, claim that their associations cannot go to pay for bleisure peregrination for your workers. It has been noticed that workers who are given a chance to balance their work life and particular life are more likely to do a better job than those who do not. Bleisure trip is also helping workers have fun as they complete the

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tasks they've been assigned. presently bleisure trip is roaring day after day, and they should be included in the periodic meeting schedule of every association for budget consideration as input is always equal to the affair as the more you invest in your workers, the further they will be productive.

### **The Rise of the Bleisure Traveler**

A rising trend among Indian business trippers is 'bleisure trip'. Bleisure is no more just a buzz word among commercial trippers. It has propelled itself into a position of a contender for trip service providers as further and further Indian millennial business trippers spare towards bleisure trip.

A exploration report revealed that Indian business trippers takes on an normal at least seven business passages in a time, of which further than half were extended for rest trip. The introductory reason behind this preference shift would be the convenience of combining work-affiliated trip with recreation. Add to that the cost effectiveness of travelling to destinations where the cost of breakouts, train or machine tickets are borne by the company and bleisure emerges as a clear winner and so around 95 of commercial tripper's moment either conclude for or would want to take a bleisure trip.

In order to achieve success in their business a trip service provider must keep in mind certain aspects related to bleisure trip request like, vacuity of great entertainment, whether in the form of notorious theatres, adventure premises or workrooms,etc.

The destination chosen for trip also must be a world- notorious sightseer spot/ megacity/ country. It's also seen that around 85 of Indian bleisure trippers spend up to five hours probing their passages and prefer largely- personalised suggestions. They prefer reserving platforms that use data analytics to hyperactive- customise suggestions. In addition, stoner Generated Content (UGC) from review websites influences their decision- making process.

Also 72 of Indians spend as important or more on bleisure passages as they generally spend on recesses. Nine out of ten business trippers plan and save for bleisure passages. These are some of the most important factors that all travel assiduity stakeholders need to acquaint themselves with before getting into bleisure trip. In addition, since a maturity of bleisure trippers are tech expertise, they demand both slice- edge digital support as well as conjurations from trip advisers on- the- go.

Thus, trip service providers need to combine the stylish of trip technology with business inventions to effectively capture the Indian business rubberneck. Effective

Communication with trip buyers is essential for trip service providers to break into the bleisure.

### **The Need for Bleisure Trip in Organization**

Bleisure trip is a combination of rest and work which encourages work- life balance. It also allows the workers to spend further time with the rest of their families. Utmost heads will be allowed to bring their mate or children for the trip. Bleisure can be used to increase networking openings and especially for the youthful workers who go for night- outs. The association can, thus, use this occasion to expand its customer compass. Bleisure trip helps workers to work more efficiently because they can work as they relax. The workers can save the plutocrat they would have spent on recesses and holidays. However, you'll have to pay for a redundant hostel stay, food, If you take yourself for holiday. In bleisure trip, the association incurs all those costs

The workers, especially the workaholics, are suitable to acclimate to new sleep schedules. They're also suitable to explore new surroundings. Through bleisure trip, workers are suitable to gain new artistic gestic in the metropolises they visit. These passages also offer trip agencies and hostellers the occasion to increase their earnings. The people who give rest accommodation profit a lot from the workers who extend their stays. For further income, these service providers should give extended stay offers.

### **IDEAL OF THE STUDY**

To study and understand the reasons for the fashionability of bleisure tourism amongst the commercial workers.

To find out the anticipation of commercial workers from bleisure.

### **RESEARCH METHODOLOGY**

This study is grounded on office exploration and secondary data was collected through books, journals, Research papers and websites.

### **Practical Counteraccusations**

This study will help the associations to apply the conception of bleisure tourism as a tool to motivate their workers and at the same time perfecting their Quality of life in order to keep them productive at delivering results for the company. This study will also impact the trip assiduity and trip agencies in constructing special traveling deals for the corporates and concentrate on expanding their service by creating special trip packages for bleisure excursionists

The arising trend of bleisure trip inside commercial organization's Growing Focus on Employee Retention to goad Demand for Bleisure Tourism in the Commercial Sector Grounded on the operation, deals in the commercial member are likely to continue gaining traction over the cast ages. As workers in transnational pots are constantly needed to travel across multiple countries for business purposes, demand is projected to increase at a considerable pace in the forthcoming times Convenience and Wide Vacuity of Bleisure Tourism Packages Online to Energy Growth As per the analysis, in terms of reserving channels, the online booking member is anticipated to

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regard for a significant share of the request. The emergence of colorful online trip agencies, including booking.com, Expedia, and KAYAK is likely to continue boosting deals in this member. Consumers are Decreasingly Preferring Domestic Bleisure passages in terms of trip type, demand in the domestic trip member is projected to regard for a significant share of the request. Growth can be attributed to colorful government enterprise for the development of conference halls, transnational business summits, and the growth of the travel and tourism sector. As we have also took many examples of the from the cross-sectional analysis by the peer reviewed questionnaire, we have got 50 responses we have calculated it through Anova analysis and an independent t- test

### **Demand for Bleisure Tourism in the Independent Travelers Segment to Gain Momentum**

By tour type, the independent traveler's segment is forecasted to account for a dominant share of the market. Consumers are preferring to travel solo, which has encouraged industry stakeholders to recognize not only business group travelers but also independent travelers People nowadays are likely to travel alone to gain new experiences, explore new cultures, reflect on themselves, and gain a sense of empowerment

### **Bleisure Tourism among IT Professionals to Gain Momentum**

Based on occupation, sales in the technology/IT/software segment are projected to increase at a steady pace, followed by the manufacturing segment. The growing interest in travel and tourism among millennials to explore new locations, cultures, and cuisine is expected to fuel sales in this segment.

### **Bleisure Travellers are Preferring to Travel Once Every 2 to 3 Months**

In terms of travel frequency, once every 2-3 months segment is likely to dominate the market in the forthcoming years. Frequent travelers are the least likely to add personal days to their trips those taking trips after every two to three months are likely to take bleisure trips By contrast, one-third of all bleisure trips are taken by employees traveling after two to three months.

### **Why Business Professionals are Preferring Short passages for Bleisure Tourism**

In terms of business trip length, deals in the 2 night's member are anticipated to hold a captain's share of the request.' Bleisure trip has lately come an unconventional hand perquisite around the world, where employers are allowing workers to add rest trip to business passages. In addition, trippers are likely to extend their passages by one or two days, particularly if they're visiting a new destination, which is fostering the growth of 2- nights of stay

It set up that bleisure trippers tend to make frequent business passages, with the vast maturity (70 percent) travelling on behalf of their business at least formerly every three months.

Association of Indian Business trippers reveals that 72 of Indian business trippers extended their business passages to spend time enjoying the destination in recent times while (53) were planning a transnational business trip in future.

Nearly two- thirds of Indian trippers (65) say that they've been on a domestic business trip, which is the loftiest chance encyclopedically, ahead of Indonesian trippers (62) and Chinese trippers (62). In addition, further than half (58) of Indian trippers reported that they had been on a transnational business trip in 2018.

It was also set up that bleisure tripper's work in a wide range of different diligence, but the most common were trippers working in areas like technology, healthcare, public administration and manufacturing. Numerous business trippers return to the same position constantly, or at least further than formerly. With this in mind, bleisure passages offer an occasion for trippers to get to know the position and its culture more. This, in turn, can help to ameliorate the quality of work done, while allowing further meaningful business connections to be formed.

Eventually, bleisure offers the possibility of business trip with a companion, similar as a friend, mate or coworker. This can help to palliate tedium, help passions of insulation and help with overall enjoyment of the trip, this exploration shows that, when considering the destination, they travel to, some of the features or original immolations that are most likely to encourage a bleisure trip are sightseeing locales, strands, caffs and the rainfall. Major events, similar as carnivals, artistic events, sporting events and music musicales are also a huge factor bleisure trippers tend to want to use services that make trip easy and flexible. In terms of accommodation, they're likely to seek hospices and other options which offer a combination of fast and dependable internet, work areas, and 24- hour services, while also offers rest installations like gyms, gymnasiums, and pools.

## RESULTS AND DISCUSSION

**TABLE -1**  
**ANOVA**  
**SCORE**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3533.042	1	3533.042	7.852	.007
Within Groups	21598.854	48	449.976		
Total	25131.896	49			

Table 1 shows that the sig value or the p value is .007 is valid as the difference is by 1 so between 48 and 49 so the Hypothesis 1 is valid so H1 is supported.

**TABLE - 2**  
**ANOVA Effect Sizes<sup>a,b</sup>**

		Point Estimate	95% Confidence Interval	
			Lower	Upper
SCORE	Eta-squared	.141	.011	.318
	Epsilon-squared	.123	-.010	.304
	Omega-squared Fixed-effect	.121	-.009	.299
	Omega-squared Random-effect	.121	-.009	.299

- a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.
- b. Negative but less biased estimates are retained, not rounded to zero.

**TABLE-3**  
**Group Statistics**

TOURISM		N	Mean	Std. Deviation	Std. Error Mean
SCORE	BLEISURE	25	45.2800	22.21584	4.44317
	LEISURE	25	28.4680	20.15959	4.03192

**TABLE-4**

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
SCORE	Equal variances assumed	.136	.714	2.802	48	.004	.007	16.81200	5.99984	4.74851	28.87549
	Equal variances not assumed			2.802	47.554	.004	.007	16.81200	5.99984	4.74559	28.87841

Table 4 shows that the value of one side is .004 is less when compared to two sided p value which is .007 so there is a difference between the p values which is 2 so Hypothesis 2 is valid so H2 is supported

**Table-5**  
**Independent Samples Effect Sizes**

SCORE	Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
			Lower	Upper
Cohen's d	21.21264	.793	.212	1.365
Hedges' correction	21.55144	.780	.209	1.344
Glass's delta	20.15959	.834	.225	1.429

a. The denominator used in estimating the effect sizes. Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

## CONCLUSION

For business trippers, the benefit of bleisure trip is one of the biggest gratuities and helps establish a better work- life balance. It was also set up that those who engage in bleisure trip are significantly more likely to be satisfied with their quality of life, as well as their work life balance as compared with non-bleisure trippers. Bleisure is on the rise and it's one of the biggest trends in business trip.

Blending work trip with rest trip is one of the stylish gratuities of traveling for work. It helps save on holiday costs and creates a better work- life balance for trippers and the conception is growing by hops and bounds. Bleisure also helps in attracting new workers.

Erecting new knowledge by linking the conception of bleisure to hand's provocation at work that can be used as non-monetary price for hand- furnishing new theoretical perceptivity probing bleisure from new perspective by linking it with presumptive effect on workers quality of life bleisure increases the appeal for companies to host conferences in metropolises where there's a strong pull for rest. In turn, these conferences potentially achieve lesser attendance than they would ahead, bleisure has come a wide trend in business trip.

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## A STUDY ON THE EFFECTIVENESS OF DIGITAL ENTERTAINMENT IN OTT PLATFORMS IN THE CURRENT ERA

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### ABSTRACT

India has about 760 billion smart phone users to explore new technologies in life. The advancement of technologies usage entertains people in many ways. The main objective of this study is to highlight the OTT platforms usage. Due to wider scope of these OTT platforms, there are many numbers of streaming companies providing cost effective subscription plans and wide range of content. This study involves in watching digital entertainment in OTT and factors influencing for the growth and development of over the top platforms

*Keywords Effectiveness of digital entertainment in OTT platforms in media*

### INTRODUCTION

Digital India plays a crucial role in promoting the utilization of OTT platforms to stream diverse content from everywhere India. A youth oriented population has led to the increase in the viewership of OTT platforms such as Netflix, Amazon Prime, Disney Plus Hotstar, YouTube. India is currently the world's fastest growing OTT market, and is all set to emerge as the world's sixth-largest by 2024. The market is expected to grow at a CAGR of 28.6% over the next four years to touch revenues of \$2.9 billion. As India is the world's largest growing OTT industry, this momentum is utilized by the significant increase in the introduction of new OTT players in the market and rapid changes in providing of personalized content. Even the smaller OTT platforms are raising capital from international investors and making a significant impact on the market. It is quite evident that the arrival of COVID-19 pandemic has aided the OTT platforms with the increased consumption of these by the youth and OTT becoming the most preferred medium. The major benefits incurred from the OTT platforms are the flexibility of usage, availability of cross-cultural & worldwide entertainment and subscription to the user-friendly unlimited content. Also vital are factors like increasing penetration of smart phones and availability of internet data at competitive prices in India. Movies and web series are the most watched on OTT among the youth, which are preferred due to the availability of the original content, which are free from censorship. The government's plan to impose censorship on the contents of OTT platforms would have a drastic effect, as most of the users prefer to watch original content - which are unavailable on theatres and other platforms. Most youth are also against the imposition of censorship. Netflix, Amazon Prime Video and Disney Plus hotstar are the highest consumed OTT platforms as they satisfy their consumers with the best quality contents and user friendliness. There is also a huge

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rise in the arrival of regional OTT players in the market. Most of the current users of the OTT platforms are quite satisfied with their experience and majority of the consumers tend to increase their consumption of OTT in future. This trend can be successfully explored by the different OTT platforms. The OTT will further go through many changes and advancements to get the right model.

### **LITERATURE REVIEW**

According to the author Sant Singh, “In today’s era OTT (over the top video) has become big buzzword when we talk about Digital media and availability of latest video content among consumers, especially the Generation Y category. There was an era when all the family members sit together in the evening to watch traditional shows on TV like Ramayana, Mahabharata etc. But since 2013 OTT platforms have gained significant growth and it is estimated that this video streaming content shall exceed \$332 billion by 2025. However this research is about understanding various factors which lead to adoption of OTT services among millennial consumers. Due to 5G technology and advancement in IT sector the future of OTT platform will be bright because upcoming generations will have greater capacity to cope up with highly advanced systems like delivering users the experience of virtual reality in high definition video quality. Hence the users will enjoy better services in this industry. The biggest audience for OTT businesses will be the millennial consumers. The study helps to understand why millennial consumers are addicted to binge watch video content on the OTT platforms, what benefits they enjoy while watching video content on OTT platforms, companies to look at the bigger picture of adopting OTT services in their business models, consumer preference for this service, ways to induce repeated purchase and final adoption of OTT platforms in India

Dr. S. Gomathi, Dr. N. Vijaitha Christy (2021), conducted on a study on “Viewer’s Perception towards ‘OTT’ Platform during Pandemic”, as fast as technology is changing, the faster we are also changing our habits. Talking about television, there would have been a television in the entire locality and everyone used to sit and watch it at the same time, whereas today it is the age of OTT where every person has a smart phone in which he can watch any kind of content anytime. Amidst all this, the dominance of watching movies in the cinema hall has always remained. But now this domination is suspected. Most big-ticket movies in the USA have been pushed to later this year, some even to next year. Similarly, in India, the theatrical release of all major films has been indefinitely postponed. But OTT platforms are buzzing with activity. Especially after the lockdown in India, with the OTT channel gaining such a large number of viewers, people have gained a new kind of viewing experience, which can be said if it continues after this so there will be a lot of concern for cinema hall owners.

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Tripti Kumari (2020), conducted a study on growth of over the top (OTT) video services in India. The study states that, as per reports of Boston Consulting Group titled “Entertainment Goes Online” Indian OTT market will reach \$5 billion in size by 2023.

Philomina, Dr. Tahmeena Nigar Sultana (2022), conducted an empirical study on impact of OTT Platforms on Adolescents: a case study of Karnataka review of literature states that video streaming platforms are changing the media landscape of the world. Indian consumers have a wide variety of content streaming applications that lead to the launch of web content. The new era of binge viewing is gaining popularity due to OTT platforms. OTT platforms are the preferred choice for most consumers of the entertainment industry. The Indian OTT market is growing immediately due to the growth of smarter phone users, especially teens and teens, greater proliferation of smart devices, cheaper internet plans, better quality content, and a growing urban population. Therefore, there is a need to study higher forums and its impact on adolescents.

The OTT platforms are mushrooming in Indian market. The availability of cheap data and huge consumption base seems to be act as a driving force to create market penetration and build sufficient customer base. With IT revolution taking place, upcoming of OTT web streaming based platforms was inevitable. In Indian context, the story was written four years back. Mobile operators started offering 4G, smart-phone sales were raising, and number of people using internet started to increase. When the ingredients were ready, the flame of ‘Jio’ took advantage of monetization and established customer base by offering free services to users. Jio promoted digital India and ensured cheap availability of data plans at a good speed. Netflix was reluctant to come to India until 2015. On the day of launch of Jio, Netflix tweeted ‘Thank You Jio’. It was clear that with cheaper data availability at a good speed, Netflix would launch its product for Indian masses as well. Now with the help of jiofibre connections jio has launched a set up box where users can view multiple OTT apps in a single platform like Amazon prime, Sunxt, Voot , Sonyliv etc.

Nihar Sharma (2021), conducted a study on OTT platform to be sure, this is a millennium era, and they do not listen to their elders or do the things suggested by them. Population growth, youth, the market and all other aspects are all interconnected. This is a vicious circle. Digital advertising is expected to have the fastest compound annual growth rate of 18.6%, reaching US \$ 1.73 billion in 2021, which is higher than the US \$ 740 million in 2016, while the compound annual growth rate of video in Internet is even higher., Although it is 22.4%. The bottom base is \$ 239 million. With that, we can assume that the speed of technological development is very fast. Then there is OTT, which is developing from a niche market to content-based content, and long form content is gradually gaining attention. The number of OTT participants increased from 9 in

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2012 to 32 in 2018. In 2017, the Indian OTT industry achieved incredible growth of 160%. The user base of the first 16 OTT platforms increased from 63 million to 164 million in August 2016 to August 2017. In terms of the number of subscriptions to TV households, India is the second largest subscription TV market in the Asia-Pacific region, reaching 154.3 million in 2016. This will grow at a compound annual growth rate of 1.6% and will reach 166.9 million by 2021. Change with click. From online banking to electronic wallets, there is nothing, one-click to provide 8 everything at your door. The upcoming younger generation will use this advantage to recharge online data packages and download videos and other possible Internet-based applications.

Sundaravel E. and Elangovan N. (2020), in the study states that just like the Smartphone segment, the OTT space in the country is also witnessing a tussle between the indigenous and global payers. There are nearly 40 VoD providers in India, and at the rate in which new players are springing up, the number is expected to reach 100 by 2023. While local players like Hotstar and Jio Cinema has gained a stronger footing in the domestic market, global platforms like Netflix and Amazon Prime have also steadily grown their market share.

## CONCLUSION

This research has been done to analyze the effectiveness of OTT platforms during and post lockdown. Most of the respondents prefer watching OTT platforms since this generation is restless and did not want to wait long for a movie release in theatres. The speed and penetration of internet and smart phones have resulted in millions of active users in over the top platforms. As of now, ease of availability and flexibility in watching anywhere and at any time is the most influential factor for subscribing OTT platforms. Streaming applications are becoming more popular because of the leisure time entertainment and also competitions of applications have been increasing as the subscription of OTT platforms increases. Also, cost effectiveness is a major factor for approaching OTT platforms over traditional media. Since OTT is widely spreading in India, the future for OTT is promising and will have a good rate of growth.

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## A STUDY ON CONSUMER PERCEPTION ABOUT DIGITAL BANKING AND ITS BENEFITS

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### ABSTRACT

The digital banking was an easy and quick process than traditional way of banking services. The digital banking makes consumers to acquire services through an internet or electronical mode. It also means to make simple the process or work related with banking services. It has some features like all time availability, easy process, quick transfer, security, intangible services provider. Even though it has more benefits there are some problems like lack in knowledge related to the updation of technology, setting up expenses, legal issues, security, and other privacy problems. The objective of the study are to analyse about the consumer perception towards digital banking, to study about the benefits of digital banking.

*Keywords* Unified payment interface system, good security, invisible service providers, 24x7 facility.

### INTRODUCTION

Digital banking is an automated process of traditional based bank services. The digital banking enable a banks consumers to acquire goods and services through an electronical or online mode of platform. Digital banking means to digitalize all the bank operation and make substitute the bank presence with longlast online presence, removing customer need to visit the bank branch. In 1988 RBI makes up a committee to analyse the availability of digitalizing banking sector. In 2016, UPI unified payments interface system were launched to make easy the funds transfer easily. It has some of the following features like 24x7 all time availability, data aggregation, good security, invisible services providers, etc.

### STATEMENT OF THE PROBLEM

The digital banking or digital banking facility is one of the fastest way of transferring or sending funds through online mode or electronic mode. But even though it has more benefits than traditional mode of banking system, it has some problems or issues like lack of knowledge to use the technology, setting up expenses, legal problems, security and privacy problems, etc.

### REVIEW OF LITERATURE

**Davis (1993)** and **Venkatesh (2000)** intention to use technology services is the awareness of ability of to use the technology services of consumers.

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**King & He (2006)** Research on the intention to use the technology services, service is often anchored on technology acceptance model and the various models developed from the TAM model.

**Fortes & Rita (2016)** customer's intentions to use the service, will be influenced by several motivating factors leading to the intention.

**Chen, Sun and Xu (2016)** Convenience improves access to services easily with the efficiency equal to or better than other services. Convenience can be demonstrated by saving transaction time and reducing technical errors.

### **OBJECTIVES OF THE STUDY**

- To analyse about the consumer perception towards digital banking,
- To study about the benefits of digital banking.
- To provide suggestions based on findings of the study.

### **METHODOLOGY**

The study was created to find out about the consumer perception towards digital banking and its benefits. The data which was used in this were both primary and secondary data. The convenient sampling technique used for the analysis. The sample size of the study is 40. Statistical tools like percentage and chi square test was applied. Secondary data were collected from books, magazines and websites.

### **BENEFITS OF DIGITAL BANKING**

- **Ease of Signing Up:** at traditionally, the banks requires you to visit their branches and should wait in queue, fill up the paperwork process, make print out the copy of your identity and address details, and after all this you can sign up the bank account. But Digital Banking simplified the process. Now, the process of signing up can be easily done in any location by taking some minutes. All you have to do that you have to enter your details, scanned ID proof documents and verify your account created.
- **The Convenient in usage:** the consumers with tradition mode of bank account and not in online banking which leads to go to bank location in order to continue their requests. This type of process is time efficient and also tiring process. Compared to tradition method, digital banking method is convenient.
- **Higher Interest Rates:** meanwhile, lot of works can be limited by digital banking process, these services can reduces the additional fees like transaction and maintenance expenses. It pave the way for to get high interest rate for their respective accounts. Moreover, not all types of digital banking will not give high interest rate and less fees.



- **24X7:** tradition mode of banks will operate only for a several period of time. These type of banks have allotted various timings to visit the bank. They are closed during the time of holidays. By considering it, less visiting time, bank account holders find very hard to make time from their schedule to visit banks. The digital banking has made through features through apps which they can be used 24x7.
- **Personalised features:** digital banking which offer you the various personalised banking service experience. Moreover, the typical banks has some cookie cutter facility, the digital banking which offers features like reminders in bill payment, personalised budgets, money management, big purchase savings, and so on.
- **Easier in bill payments:** before digital era, you should pay your bill manual only. With the digital banking, bill payments are easier than ever before. You can have the ability to choose the bill payment reminders and can clear it in several seconds by your mobile banking app itself. In other case, you could also automatically these bill payments through the app, so the money is automatically deducted and then sent towards bills for clearing.

### Percentage, Analysis and Interpretation

**Table 1: Demographic Profile**

Personal Data	Category	No. of respondents	Percentage
Gender	Male	18	45
	Female	22	55
	<b>TOTAL</b>	<b>40</b>	<b>100%</b>
Age	Up to 20	15	38
	21 – 30	10	25
	31 – 40	10	25
	Above 40	5	12
	<b>TOTAL</b>	<b>40</b>	<b>100%</b>
Educational Qualification	Up to school	10	25
	Under graduate	15	38
	Post graduate	8	20
	Others	7	17
	<b>TOTAL</b>	<b>40</b>	<b>100%</b>
Family income	Up to 20,000	12	30
	21,000 – 40,000	16	40
	Above 40,000	12	30
	<b>TOTAL</b>	<b>40</b>	<b>100%</b>

Sources: Primary Data

### Data collected through questionnaire

The above table 1 shows that

- Majority of the respondents are female.
- Majority of the respondents ages are up to 20 and 21-22.
- Majority of the respondents are Under Graduate.
- Majority of the respondents family income is 21,000-40,000

### About Digital Banking

Personal Data	Category	No. of respondents	Percentage
Duration of usage	Often	10	25
	Weekly	16	40
	Monthly	10	25
	Rarely	4	10
	<b>TOTAL</b>	<b>40</b>	<b>100%</b>
Trust in transfer	Strongly Agree	15	37
	Agree	10	25
	Neutral	5	13
	Disagree	6	15
	Strongly disagree	4	10
<b>TOTAL</b>	<b>40</b>	<b>100%</b>	
Amount of transfer In Rs.	100-500	20	50
	500-1000	10	25
	1000-5000	5	12.5
	Above 5000	5	12.5
<b>TOTAL</b>	<b>40</b>	<b>100%</b>	
Reason for usage	Convenient	10	25
	Easy to access	16	40
	Time saving	10	25
	others	4	10
<b>TOTAL</b>	<b>40</b>	<b>100%</b>	
Time saving	Yes	30	75
	No	10	25
	<b>Total</b>	<b>40</b>	<b>100%</b>
Secure transaction	Yes	25	63
	No	15	37
	<b>Total</b>	<b>40</b>	<b>100%</b>

### Hypothesis

There is no association between gender and reason for usage of digital banking.

**Observed Frequency**

Particulars	Convenient	Easy to access	Time saving	Others	Total
Male	5	6	5	2	18
Female	5	10	5	2	22
<b>TOTAL</b>	<b>10</b>	<b>16</b>	<b>10</b>	<b>4</b>	<b>40</b>

**Expected Frequency**

Particulars	Convenient	Easy to access	Time saving	Others	Total
Male	4	7	4	3	18
Female	6	9	6	1	22
<b>TOTAL</b>	<b>10</b>	<b>16</b>	<b>10</b>	<b>4</b>	<b>40</b>

**Calculation**

O	E	O-E	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
5	4	1	1	0.25
6	7	1	1	0.14
5	4	1	1	0.25
2	3	1	1	0.33
5	6	1	1	0.16
10	9	1	1	0.11
5	6	1	1	0.16
2	1	1	1	1.00
<b>TOTAL</b>				<b>2.400</b>

(Row-1) (Column-1)

(2-1) (3-1) = 2%

Table value = 5.991

Since the table value is more than the calculated value, the hypothesis is **accepted**. So there is no association between gender and usage of digital banking.

**FINDINGS**

- 38% of the Respondents have up to 20 years.
- 38% of the Respondents have Under Graduation (UG).
- 55% of the Respondent has Female.
- 40% of the respondents have used this app weekly.

- 40% of the respondents have a family income of up to 21000-40000.
- 37% of the respondents strongly agree the trust of transfer in digital banking.
- 50% of the respondents have transfer amount from 100-500.
- 40% of the respondents are easy to access the digital banking services.

### SUGGESTION

- The respondents suggests to reduce the additional transaction fees.
- The customers indicates quick transactions notifications. Because there is delay in transactions notifications.
- The respondents suggest that the payment are being cancelled in some case of technical issues.

### CONCLUSION

The digital banking is changing the banking sector and it is having the main effects in the banking process. The banking is now no longer made as traditional brick & mortar branches, which one has to reach the bank branch to deposit or withdraw the amount or cheque. Therefore, people can assume and use their mobile wallets for the payment transaction, fund transfer, purchasing groceries and paying bills etc. The study has discussed the trust is the main factor affecting consumer's satisfaction directly and it impacts on many user's intentions to utilize mobile wallets. The results show that the trust has knowingly positive impact on actual usage of mobile wallets.

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## **A STUDY ON PERSONAL VALUES INFLUENCING JOB STRESS AMONG THE TEACHERS IN HIGHER EDUCATION AT MADURAI DISTRICT**

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### **ABSTRACT**

Job is an essential part of life. In present days stress is considered as a serious problem. Stress happens whenever one's mind and body reacts to some real or imagined situations. The purpose of this study was to analyse how the personal values influencing the job stress among the teachers in higher education at Madurai District. The researcher used the Personal values influencing job stress term for the study. To fulfil the purpose of the study a total of 250 samples were collected from Arts and Science Colleges faculties in Madurai District. The type of research used for this study is descriptive research design. Area wise Convenience samplings were used. This study indicated the personal values of the teachers and which one is most influencing job stress among them. Based on these research findings given some suggestions to the respondents about how to relieve from stressful situations.

***Key words** Personal Values, Job Stress, and Causes of stress.*

### **INTRODUCTION**

An individual enters an organization with a personal value system- a relatively permanent framework of beliefs that influences the general nature of his or her behaviour. Individuals enter the organization with their own value systems, which often clash and together may conflict with organizational values. What values a manager carries to the organization are called intended values. These are ideals that are personally important. However to be successful in the organization, managers need to learn adopt values that are part of the organizational culture. Thus they provide a frame of reference for consistency in making decisions and relationship with others organizations grow and prosper when operative values are strong. Another way personal values are categorized is Professional, Financial, Family, Social, Community, Spiritual, Physical, and Intellectual. Burnout is a state of mind resulting from prolonged exposure to intense emotional stress. It manifest through emotional exhaustion and a combination of negative attitudes. Hence this study is to identify the burnout characteristics among the samples.

In this writing about how our day to day actions match up with our deepest personal values can mentally influencing job stress and how can improve their ability to deal with stress.

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## **STATEMENT OF THE PROBLEM**

Teachers' work has always been considered to be very stressful. Burdens of teachers are numerous. Nowadays teaching is a challenging task which also can generate stress. In fact, stress in the teaching profession has been recognized as a crucial problem. Personal values are determining the professional success and fulfilment. But here we were analysed how the personal values influencing job stress and how to overcome it.

## **NEED FOR THE STUDY**

The present educational system itself is highly complex and competitive. The institutions and the faculty members are under continuous strain to accomplish higher targets. So the educational institutions are in need for conducting research relating to the measuring stress and influencing factors of stress among the teachers. Personal values are one of the important influencing factors of job stress. So that conducting research among the teachers and finding important influencing values relating to job stress.

## **REVIEW OF LITERATURE**

McCormick, 1996 numerous studies have shown stress in the workplace to be associated with reduced productivity, absenteeism, turnover and impaired employee health and well beings.

Van Dick, 2001 At least on third of the teachers can be seen as suffering under extreme stress and burnout. Therefore, it is of great interest to get a deeper knowledge of antecedents and consequences of teachers stress.

Diana Boer, Ronald Fischer (Jan 2013) How and when do Personal values guide our Attitudes and Sociality? Explaining cross culture variability in Attitude-Values Linkages. The article examines how and when personal values relate to social attitudes. Considering values as motivational orientations, we propose an attitude-value taxonomy based on Moral foundation Theory (Haidt & Joseph,2007)

Shalom H.Schwartz, Jan Cieciuch the Hewbrew University of Jerusalem (Aug 2017) Personal values in human life. The construct of values is central to many field in the social sciences and humanities. Individuals act in ways that allow them to express their important values and attain the goals underlying them. Thus, understanding personal values means understanding human behaviour.

Noga Sverdlik, Shaul Oreg (1 sep 2009) Personal values and conflicting Motivational Forces in the Context of Imposed Change. Internal motivational conflicts that arise in the context of imposed change were investigated through a personal values perspective. In study 1, a field study of 107 employees, Study 2, a laboratory study of 128 undergraduate in addition to replicating the

results of Study 1, the different motivational dynamics that exist in voluntary versus imposed change situations were demonstrated.

## RESEARCH METHODOLOGY

### Objectives of the Research

- To Estimate the causes of stress among the teachers in higher education.
- To Estimate the relationship between Personality Profile and Job Stress.

**Type of research:** Descriptive Research

**Sampling Technique:** Area Sampling

**Sampling Unit:** Teaching faculty members in various colleges at Madurai district

**Sampling size:** 250

**Type of data collection:** Primary data and Secondary data

**Tool for data Collection:** Questionnaire

**Tools for Data Analysis:** Percentage, Mean, Chi-Square, One-way ANOVA

## DATA ANALYSIS AND INTERPRETATIONS

**Table 1: Percentage Analysis on selected Demographic Variables**

AGE	FREQUENCY	%
Below 30	71	28.4
<b>31-40</b>	<b>172</b>	<b>68.8</b>
41-50	7	2.8
Above 50	0	0
TOTAL	250	100.0
GENDER	FREQUENCY	%
<b>Male</b>	<b>137</b>	<b>54.8</b>
Female	113	45.2
TOTAL	250	100.0
EXPERIENCE	FREQUENCY	%
< 5 years	15	6.0
6-10 years	56	22.4
<b>11-15 years</b>	<b>137</b>	<b>54.8</b>
16-20 years	35	14.0
>20 years	7	2.8
TOTAL	250	100.0



EXPERIENCE	FREQUENCY	%
Married	200	80.0
Unmarried	50	20.0
TOTAL	250	100.0

*Source: Primary data*

### Inference

From the above table, it is clear that majority 68.8% of the respondents are 31-40 age groups. And only 2.8% of the respondents are 41-50 age. Majority of the respondents are male i.e., 54.8% and only 45.2% of the respondents are female. Majority 54.8% respondent's years of experience are more than 11-15 years and only 2.8% of the respondents are having more than 20 years of experience. The table represent that majority of the respondents are married i.e. 80% and only 20% of the respondents are female.

**TABLE: 2-CAUSES OF STRESS**

S.NO	FACTOR	MEAN VALUE	RANK
1.	Fatalism	1.89	X
2.	Boredom	2.04	VIII
3.	Discontent	1.97	IX
4.	Cynicism	2.22	VI
5.	Inadequacy	2.30	V
6.	Failure	2.08	VII
7.	Overwork	2.38	III
8.	Nastiness	2.92	I
9.	Dissatisfaction	2.47	II
10.	Escape	2.33	IV

**Source:** Primary Data

### Inference

The above table shows that clearly how attitudinal characteristics of burnout affect Job Stress of faculty in higher education. According to the mean score the causes of stress which have been ranked give a clear picture about the causes of job stress. As compare to other causes NASTINESS is the main cause for the Job Stress among the sample selected (REC). The majority of the respondents having an unpleasant to their co-workers. FATALISM is the least mentioned causes for Job Stress given by the respondents.

TABLE NO.3

## CLASSIFICATION OF THE RESPONDENTS BASED ON PERSONAL VALUES

S.NO.	PERSONAL VALUES	NO.OF THE RESPONDENTS	PERCENTAGE OF THE RESPONDENTS
1	Professional	157	62.8
2	Financial	36	14.4
3	Family	12	4.8
4	Social	7	2.8
5	Community	9	3.6
6	Spiritual	14	6.5
7	Physical	3	1.2
8	Intellectual	12	4.8
	TOTAL	250	100

Source: Primary Data

**Inference**

Above table shows that 62.8 percent of the respondents are given more importance to their Professional. 14.4 percent of the respondents are given the importance to financial. And finally 1.2 percent of the respondents are in Physical group. They are not gave more importance to their physical.

Relationship between “Professional” dimension of Personal Values and Age, Gender, Experience

TABLE NO.4

Age, Gender and Experience	No. of the Respondents in Professional Values	Percentage of the respondents
Below 30	47	30.0
31-40	106	67.5
41-50	4	2.5
Above 50	0	0
<b>Total</b>	<b>157</b>	<b>100</b>
Male	77	49.0
Female	80	51.0
<b>Total</b>	<b>157</b>	<b>100</b>
Less Than 5 years	5	3.2
6-10 years	40	25.5
11-15 years	85	54.1
16-20 years	24	15.3
More than 20 years	3	1.9
<b>Total</b>	<b>157</b>	<b>100</b>

TABLE: 5

PEARSON CHI – SQUARE TABULATION					
Relationship Between Personal Values And Gender					
Factors	Df	X <sup>2</sup> Value	Level of Significance	Table Value	Remarks
Professional	4	18.121	0.001	9.488	Significant
Financial	4	7.914	0.095	9.488	Significant
Family	4	8.360	0.079	9.488	Significant
Social	4	4.601	0.331	9.488	Significant
Community	4	8.848	0.065	9.488	Significant
Spiritual	4	16.899	0.002	9.488	Significant
Physical	4	7.277	0.122	9.488	Significant
Intellectual	4	7.914	0.095	9.488	Significant

Source: Primary Data

### Inference

The calculated Chi-square value is less than the table value for all the Personal Values factors at 5% level of significance, therefore, alternative hypothesis is accepted. It is concluded that, all the factors have a significant association with Gender.

### ANOVA

TABLE NO.6

#### RELATIONSHIP BETWEEN PERSONAL VALUES AND AGE

S. No.	PERSONAL VALUES	F	Sig.
1	Professional	.889	.412
2	Financial	1.472	.232
3	Family	3.408	.035
4	Social	5.787	.003
5	Community	1.472	.232
6.	Spiritual	3.408	.035
7.	Physical	.690	.503
8.	Intellectual	3.048	.049

Source: Primary Data

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### **Inference**

It is observed that 'F' test significant value is less than 0.05 or nearest zero there is significant relationship between Personal values and Age. If the value is more than 0.05 or which is not nearest zero there is no significant relationship between Personal Values and Experience.

From the above table shows that the 'F' test value 0.412 which is not nearest to zero. Hence there is no significant relationship between the Professional and Age. Hence Null hypothesis accepted.

### **FINDINGS AND SUGGESTIONS**

Nel (2005) explains that stress is necessary for people to be successful. Exposure to stress over a period of time can be a stimulus for growth in a certain area. People have to find their own balance to decrease the risk of the effects of ongoing stress.

Many of the respondents are come under the Professional Group. These are affected with their working environment i.e. caused job stress. Because the respondents are given importance especially for the Professional.

The Big eight personal values are to attract the attention of all such as academicians, researchers and practicing managers. The personal values help assess the potential of an individual to become a successful professionalize. Personal values not only the belief of a person's but also it influenced their behaviors in the work place. The organization should concentrate their employee's attitudes and thinking which is most influencing in their growth of professional values.

Stress management programmes should be encouraged and the organization should dispense information about the fundamentals of stress and its managing tactics like die tics, exercise and meditation.

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## PROFITABILITY AT INDIAN PUBLIC AND PRIVATE SECTOR BANKS: EFFECT OF NON-PERFORMING ASSETS

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### ABSTRACT

Modern industrial growth, an increase in domestic trade, and foreign trade are all true factors that influence a nation's economic development trends. Underappreciated in terms of value and contribution to India's development is the banking industry. By assessing and evaluating the financial performance soundness of the bank's operations using the CAMEL (Capital Adequacy, Asset Quality, Management Quality, Earnings and Liquidity) grading system criteria, the authorities have strengthened bank oversight. The CAMEL Rating System and One-way ANOVA were the instruments employed in this experiment. Public sector banks like Bank of Baroda and private sector banks like Kotak Mahindra Bank Limited have the highest composite rankings across all bank criteria. The private sector banks Kotak Mahindra Bank Limited and the public sector Bank of Baroda are both operating very successfully, based on a composite ranking of all the banks' parameters. AXIS Bank and Punjab National Bank were the two banks that performed the best.

**Keywords** *CAMEL parameters Capital Adequacy, Assets, Earnings, Liquidity, Public, Private Bank*

### INTRODUCTION

The banking industry is the most significant subsector of the financial services sector. As a result, the banks and financial institutions play a crucial and important part in economic planning, including the establishment of exact objectives and the distribution of predetermined financial resources that comprise the economic strategy of the government. The development of the financial system is essential for economic growth. The performance of the banking sector is therefore a useful barometer and indicator for assessing the general health of any economy. The success of the banking sector looks to be a perfect replication of economic activity since a strong banking system acts as the foundation of an Indian economy's economic, social, and industrial advancement. The economy has received funding from the banking system.

Banks should be given more concentration than other types of economic units in an economy because of the fundamental and significant function they naturally play in the capital configuration of the economy. The most recent evaluation of the financial performance of the banking industry is a helpful tool and indicator for figuring out whether an economy's economic operations are solid. The economy's behaviour appears to be modelled on the performance of the

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banking sector. The financial sector's stage of development is a trustworthy predictor of the state of the economy. In terms of the banking sector's recovery, management efficiency, asset excellence, earning quality, and internal control framework, Compared to the previous decision-making method, there has been a huge improvement. Risk level and financial viability of commercial banks a paradigm shift in the banking sector necessitated an assessment of operations' effectiveness. In response, the Reserve Bank of India developed a methodology for assessing the effectiveness of operations, operational capacity, and bank performance. The Padmanabhan Working Group (1995) recommended two supervisory rating models named CAMELS and CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls) for assessing Indian commercial banks and Foreign Banks operating in India.

### **REVIEW OF LITERATURE**

An effort has been made to briefly review the work that has already been done for their research in this section. The following is a succinct review of a few chosen studies.

Kiran Kajal (2022) examined the financial status and operational efficiency of Indian public and private sector banks. The report recommended that IDBI Bank increase the assets quality and capital adequacy because overall performance of public and private sector banks was the same as a result of banking reforms and recovery mechanisms.

Mahesh M. Kadam and Deepak Sapkal (2022). Based on performance, the survey determined that SBI was placed first while Bank of Baroda was ranked second. The findings showed that the banking industry was dealing with an NPA issue, which had a significant influence on bank performance and yearly results.

Prasad K.V.N. and Ravinder G. (2021) investigated the economic sustainability of a sample of 39 Indian banks from 2006 to 2010. Overall, the analysis found that the Bank of Baroda, Punjab and Sindh Bank, and Andhra Bank had the best CAMEL ratio performances.

Prasad K. V. N. (2020) looked at the performance of the banking industry. The results of the study's combinational regression analysis supported the existence of a reverse relationship between risk taking in national banks and indices of asset quality and market risk sensitivity. The liquidity positions of the paper's public and private sector banks did not differ noticeably during the research period. The findings indicated that

Prasad K.V.N. and Maheshwara Reddy (2018)'s evaluation of the banking industry's performance, the CAMEL model was used to analyse the parameter that gauges banks' performance. According to the study's findings, there was no discernible difference between the SBI group's performance and that of nationalised banks.

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Through the CAMEL grading system, Kolade Sunday Adesina (2012) assessed and contrasted the performance of the Nigerian banks in the post-2005 consolidation. According to the Group Ranking on the CAMEL parameters for the research periods, WEMA Bank Plc regularly rated among the bottom 7 performing banks, proving that its financial performance was subpar. According to the findings, GTB Plc should be recognised as having the best overall performance. The literature mentioned above gives a general summary of international listing and how India's banking sector is integrating with the global economy. Investors, clients, bankers, policy makers, and the economy can all benefit from an assessment of a bank's performance using an internationally recognised methodology. This study aims to analyse the financial performance of Indian banks from both the public and private sectors. The possible application of a model created to identify banks whose supervisory ratings would be reduced in the future to bank supervision.

## **DESIGN OF THE STUDY**

### **Statement of the Problem**

The study advises comparing Indian banks' financial outcomes in the public and private sectors to see whether there are any disparities. The banking sector is crucial to the economic and financial reforms. The banking sector has expanded greatly in recent years, offering more services and significantly affecting the GDP of the Indian financial systems. This has had a tremendously positive effect on economic development and growth. In essence, sound banking reforms like interest rates and policy monitoring are necessary for effective banking practises. One of the most effective techniques for studying the financial performance of the banking sector is the CAMEL model, which is one of many tools available for analysing the profitability of banks. The literature argues that the expansion of Indian banks will be aided by the development of information technology. Only a few studies were performed in India to determine the profitability of Indian banks using the CAMEL model. A bank's financial performance is based on its assets and liabilities, which power its activities and offerings. Each bank has a unique set of assets and liabilities that have an impact on how well it performs financially. The current study used the CAMEL Model to analyse the profitability after the US Sub Prime Crisis.

### **Need of the study**

The study's goal is to contrast Indian banks' profitability effect on NPAs in the public and private sectors. Each of the CAMEL Model's five factors has a unique quality for analysing banks' profitability. The analysis is what determines a bank's rating, and the CAMEL approach can be utilised to understand more about banks' financial standing. The study could be useful for investors and depositors, and it could also be significant for policymakers, employees, and



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shareholders. The goal of this study was to examine bank profitability effect on NPAs using the CAMEL method.

### **Objectives of the study**

The following goals guide the current investigation.

1. To use the Assets Quality CAMEL model to examine the impact of NPAs on Profitability Public and Private Sector Banks during the duration of the study.
2. To assess how Public and Private Sector Banks ranked using the CAMEL rating methodology for overall Assets Quality over the period of the study.
3. To compare the Assets Quality CAMEL ratios between banks in the public and private sectors over this period of the study.

### **Hypotheses of the Study**

H01: There is no significant difference in performance of Public and Private Sector Banks based on Assets Quality CAMEL ratio during the study period.

H02: There is no statistically significant difference between the mean values of Assets Quality CAMEL ratios during the study period.

### **Sample Selection of the study**

In this investigation, 39 domestic Indian banks were taken into account. Included are banks from both the public and private sectors. The examination was solely focused on the domestic market capitalisation of banks in the public and private sectors. On September 3, 2022, information on the market capitalization of domestic banks was collected. When selecting the sample, the following criteria were taken into account: Based on domestic market capitalization in banks, only the top 7 public and private banks were selected from a total of 39 banks. The profitability impact of NPAs was examined using the selected sample of 14 banks. In India's banking industry, the public sector accounts for 35% of the banks, or 7 out of 20, and the private sector accounts for 37% of the banks, or 7 out of 19. Table 2.4.1. Lists the sample selection.

Table – 2.4.1.

S. No.	Banks in India	Market Capitalization Value (Rs. in Crore)
<b>Public Sector Banks</b>		
1.	State Bank of India	493,819.53
2.	Bank of Baroda	87,728.81
3.	Punjab National Bank	56,566.13
4.	Bank of India	32,650.22
5.	Canara Bank	30,164.37
6.	Union Bank of India	29,718.62
7.	IDBI Bank Limited	12.647.12
<b>Private Sector Banks</b>		
8.	HDFC Bank Limited	906,759.00
9.	ICICI Bank Limited	585,276.89
10.	AXIS Bank Limited	266,631.66
11.	Kotak Mahindra Bank Limited	250,379.65
12.	ING Vysya Bank Limited	30,068.09
13.	Federal Bank Limited	27,689.82
14.	Karur Vysya Bank Limited	8,716.82

Source: [www.moneycontrol.com](http://www.moneycontrol.com)

### Sources and Collection of the Data

The reports on banking statistics from [www.rbi.org.in](http://www.rbi.org.in) and the yearly reports from the appropriate banks via the prowest database of [www.moneycontrol.com](http://www.moneycontrol.com) served as the main sources of secondary data for the current study. In addition, banking-related websites, publications, and books were used.

### Period of the Study

The public and private financial health of Indian banks are the subjects of the current investigation. The data covered the Indian economy's financial sector from April 1, 2006, to the last day of March 2022.

### Tools Used For the Analysis

In this study, the following tools were used: the CAMEL Rating System, CAMEL criteria Capital Adequacy, Assets Quality, Management Quality, Earnings Quality, Liquidity, and One-way ANOVA.

## RESULTS AND DISCUSSION

Table – 3.1.

Results of Composite Assets Quality of Selected Sample Public and Private Sector Banks during the study period from 01.04.2006 to 31.03.2022

S. No.	Name of the Public and Public Sector Banks	Net NPAs to Net Advances		Total Investments to Total Assets		Net NPAs to Total Assets		% Change in Net NPAs		Group Rank	
		Avg.	Rank	Avg.	Rank	Avg.	Rank	Avg.	Rank	Avg.	Rank
1	State Bank of India	2.04	14	30.44	9	0.79	10	72.04	7	10.00	14
2	Bank of Baroda	0.92	5	26.94	2	0.42	5	36.82	1	3.25	1
3	Punjab National Bank	0.82	4	29.53	8	0.35	3	61.55	6	5.25	2
4	Canara Bank	1.45	12	28.71	6	0.83	13	64.15	4	8.75	10
5	Bank of India	1.64	13	25.44	1	0.96	14	61.48	5	8.25	7
6	Union Bank of India	1.38	10	28.307	4	0.80	11	90.20	9	8.50	8
7	IDBI Bank Limited	1.37	9	29.36	7	0.83	12	93.89	11	9.75	12
8	HDFC Bank Limited	0.32	1	33.30	12	0.1683	1	141.5	14	7.00	6
9	ICICI Bank Limited	1.39	11	30.44	10	0.6395	8	90.80	10	9.75	12
10	AXIS Bank Limited	0.65	3	34.07	14	0.3059	2	58.24	2	5.25	2
11	Kotak Mahindra Bank Limited	1.06	7	33.85	13	0.4745	6	78.90	8	8.50	8
12	ING Vysya Bank Limited	1.11	8	28.49	5	0.6356	9	59.37	3	6.25	5
13	Federal Bank Limited	0.96	6	30.75	11	0.5270	7	107.50	12	9.00	11
14	Karur Vysya Bank Limited	0.645	2	27.69	3	0.3740	4	127.80	13	5.50	4

Source: collected from Prowess and computed from MS Excel 2007

### **Analysis of Composite Assets Quality of Selected Sample Public and Private Sector Banks during the study period from 01.04.2006 to 31.03.2022**

The results of a sample of public and private sector banks are shown in the Composite Assets Quality Table-3.1. For the study period from 01.04.2006 to 31.03.2022. Asset quality ratios were used to gauge a company's ability to maintain its assets in proportion to its liabilities. After aggregating the rankings given to various ratios, Bank of Baroda received the top spot. When it comes to NPA maintenance, as evidenced by the first two ratios above, HDFC Bank Limited was quite effective. The top spot was held by HDFC Bank Limited, which had an average Net NPAs to Total Assets ratio of 0.32. With an average of 2.04, State Bank of India held the bottom spot. With an average of 25.44, the Bank of India's Total Investment to Total Assets was in the lead. AXIS Bank held the last spot with the highest average of 34.07 points. With an average of 0.1683, HDFC Bank Limited holds the top spot for Net NPAs to Total Assets. With a 0.96 average, Bank of India placed in last place. With an average of 36.82, Bank of Baroda held the top spot in terms of the percentage change in NPAs, while HDFC Bank Limited was in last place. Bank of Baroda was in first place with a group average of 3.25 based on the sub-parameters of assets quality. State Bank of India obtained the bottom spot as a result of its subpar performance across the asset quality.

**Table -3.2.**

### **Results of one way ANOVA Selected Sample Public and Private Sector Banks during the study period from 01.04.2006 to 31.03.2022**

<b>Source of Variance</b>	<b>Sum of Squares</b>	<b>Degree of Freedom</b>	<b>Mean Square</b>	<b>F-Value</b>	<b>Significant Value</b>
Between Groups	13.192	5	2.638	.507	.770
Within Groups	332.933	64	5.202		
Total	346.125	69			

ANOVA was used to evaluate the sample banks' Assets Quality CAMEL Ratios. From Table 3.2., it is clear that the computed F-value was statistically significant. Additionally, the sig. value (Probability value) showed that there was no statistically significant difference between the mean CAMEL ratios, hence we accepted the null hypothesis. Thus, it may be inferred that the sample enterprises' capacity to fulfil their short-term responsibilities varied over the study period.

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### Testing the Hypothesis

The null hypothesis "There is no statistically significant difference between the mean values of Assets Quality CAMEL ratios during the study period" is rejected by the overall analysis. The comparison of the profitability effect on NPAs of public and private sector banks in Table 3.2. makes this observation very obvious. It suggests that the mean CAMEL ratios in Indian public and private sector banks differed in a statistically meaningful way. Because of this, the alternative is accepted and the null hypothesis, "There is no statistically significant difference between the mean values of Assets Quality CAMEL ratios during the study period," is rejected.

### FINDINGS OF THE STUDY

#### Analysis of Asset Quality

- According to a review of asset quality, Bank of Baroda held the top spot with an average performance score of 3.25.
- Due to its poor performance across all sub-parameters of asset quality, State Bank of India obtained the lowest position with an average asset quality of 10.00.

### SUGGESTIONS OF THE STUDY

On the basis of the above findings of the study, important suggestions are given below.

#### To the Bankers

- In order to enhance the capital adequacy ratio of private sector banks over public sector banks by at least 1%, there needs to be a specific check on the soundness of public sector banks.
- Public sector banks should lower their debt-to-equity ratio to match private sector banks' levels. Public sector banks must use their assets for advances in an efficient manner.
- In order to reduce their income uncertainty and ensure the safety of their investments, private sector banks must raise their investment in government security.
- The State Bank of India has a high NPA ratio. Public sector banks should manage non-performing assets because their NPAs are higher than those of private sector banks.

Both private sector banks and public sector banks have inadequate earning quality analyses. The operating profit and non-interest income (fee, commission, etc.) metrics for both private and public sector banks need to be improved.

To increase their total profitability, Public Sector Banks must raise the Earning Quality. Compared to public sector banks, the liquidity ratio of private sector banks needs to be improved.

### **To the Policy Makers**

The Reserve Bank of India's laws and regulations could be improved, and policymakers must adopt the practises of other bankers to expand both public and private sector banks. In India, the banking industry is essential to the country's financial system. The banking industry is also reliant on some basic economic principles. When formulating policies, decision-makers should focus on the financial sector and create better guidelines for the banks.

### **CONCLUSION**

The current analysis revealed the financial results of banks in the public and private sectors over the course of the investigation. Banks from the public and private sectors are pioneers in technology and help the economy flourish. The composite ranks display the overall performance of the company. While Bank of Baroda has demonstrated stronger asset quality with sustained not affected profitability NPA levels, HDFC Bank Limited has consistently maintained a standard for the NPAs that are higher than other public and private sector banks. The NPA ratios have been maintained by AXIS Bank Limited and Punjab National Bank, which is pretty impressive. In terms of overall performance, Bank of Baroda and Punjab National Bank have seen solid growth of profitable banks

### **Scope for the Further Research**

- The following points to additional study
- More public and private sectors from the Indian banking industry may be included in future studies.
- The aims of the future research could refer to overseas banks.
- Researchers may utilise CACS (Capital Adequacy, Asset Quality, Complaints, Systems and Controls), DEA (Data Envelopment Analysis), and other methods to conduct more research. Researchers may also incorporate overseas banks to examine financial performance.
- The study term might be extended by additional research.

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## EFFECTIVENESS OF DIGITAL MARKETING IN THE DIGITAL ERA

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### ABSTRACT

Marketers are faced with new challenges and opportunities within this digital age. Digital marketing is the utilization of electronic media by the marketers to promote the products or services into the market. The main objective of digital marketing is attracting customers and allowing them to interact with the brand through digital media. This article focuses on the effectiveness of digital marketing in the digital era. This study has described various forms of digital marketing, effectiveness of it and its impact in the digital world. The study is fully based on secondary data and based on its view about the digital marketing.

**Keywords** *Digital Marketing, Effectiveness, Digital Era*

### INTRODUCTION

Digital marketing allows businesses to reach a global audience regardless of their physical location. With the internet being accessible to billions of people worldwide, digital marketing can extend the reach of a brand or product far beyond traditional marketing methods. Digital marketing platforms enable businesses to target specific demographics, interests, behaviors, and preferences. Compared to traditional advertising methods like print, radio, or TV, digital marketing can be more cost-effective. Many digital marketing channels, such as social media, email marketing, and content marketing, require lower budgets while offering measurable results. Digital marketing allows for detailed tracking and analysis of campaign performance. Marketers can monitor Key Performance Indicators (KPIs) such as website traffic, conversion rates, click-through rates, and engagement metrics to evaluate the success of their efforts and make data-driven decisions. Digital marketing channels facilitate real-time interactions with customers through social media, live chats, and comments. This engagement can build trust and credibility, leading to higher customer satisfaction and advocacy among the customers.

### RESEARCH METHODOLOGY

In research methodology, secondary data refers to data that has been collected, processed, and published by someone else or for a different purpose than the current research study. It is a type of data that is already available and can be used by researchers to address their research questions



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or objectives without conducting new data collection. Academic journals, books, research reports, and other publications that contain data relevant to the research topic are the different secondary data that a researcher will use. In this research totally 12 papers are discussed.

### **REVIEW OF LITERATURE**

Internet usage continues to explode across the world with digital becoming an increasingly important source of competitive advantage in both B2C and B2B marketing. A great deal of attention has been focused on the tremendous opportunities digital marketing presents, with little attention on the real challenges companies are facing going digital. Adjusting the “organizational design”, and implementing “actionable metrics” are the biggest improvement opportunities for companies across sectors by using digital marketing.

Impact of digital technology marketing has had a tremendous impact, namely increasing more engagement on social media and marketing, Key Performance indicators analyzing organizational values, growing demand for more digital, growing product searches among users, increasing demand for platforms Content, and this is demonstrated in many companies and organizations. During the COVID-19 pandemic, digital marketing has hit its growth charts and has made gains in technology around the world. Digital marketing in hospitals during this pandemic is a marketing strategy that has many benefits, namely it can attract new patients, expand business, increase customer/patient trust, strengthen customer/patient loyalty, increase brand awareness, encourage patients to use hospital services and promote it to other patients and family.

Development of marketing in the era of the digital economy plays an important role. In the structure of the digital economy, the process of modifying marketing into smart-marketing (digital-marketing) happens - work that allows the use of digital advanced technologies. Thus, by analyzing “Big Data” and applying other achievements of advanced technology, it is possible to influence the compilation of needs, as well as develop and promote value propositions for consumers on the market. The article uses methods - general scientific method, i.e. analysis of world experience in transition to absolute digital economy, implementation of digitalization in all types of activities; philosophical method - is based on analytical and statistical conclusions about digitalization of economy and its impact on other activities; analogue method - the same forecasts about digitalization of marketing were taken from the theory of digital economy and its direction. As a result, based on the SWOT analysis, leaning on the strengths, weaknesses, threats and opportunities, it is possible to understand that the digital economy undoubtedly affects marketing.

Today, digital marketing is one of the most effective elements of the marketing communications complex, which does not show signs of slowing down or stopping. Therefore, leading companies and their marketers focus their efforts on the formation of digital communications with their efforts on the formation of digital communications with their consumers. The global network has changed the communication between the consumer and the company. In the digital era, the focus of companies has changed: now they seek not so much to maximize profit, how much to satisfy the client's need in order to be sure that their product has value in the market will be in demand. As technology advances, more complex tools are produced that can be used as a medium in the creation of consumer-focused business operations. More and more businesses are switching from traditional marketing to digital marketing, but there are still many businesses that are less effective in implementing digital marketing strategies. The importance of digital marketing in today's digital era and technological developments that affect the way businesses interact with customers. One way of combining these technologies is marketing practices that utilize digital marketing techniques. The purpose of this research is to evaluate and explore how exposure to digital marketing strategy concepts can increase customer satisfaction using an application basis. The results show that an effective digital marketing strategy includes: a solid understanding of the target market and segmentation, choosing the right marketing platform, interesting and relevant content, search engine optimization, ongoing customer interaction and interest. The conclusion that can be drawn from the findings of the discussion is that an application-based digital marketing strategy, organizations involve an analysis of internal and external elements to choose the best digital marketing approach.

Over the course of digitization, many innovative marketing technologies have emerged that – theoretically speaking – promise firms gains in efficiency and/or effectiveness. However, a central task for marketing is not to allow the use of these technologies to become an end in itself, but to preserve the guiding principle of marketing, namely customer orientation. This means that the new technologies only offer added value for firms if they also offer (perceived) added value for consumers. Using three specific application areas as examples (chatbots, voice assistants and data privacy management), we show how firms can combine innovative marketing technologies and consumer interests in a purposeful manner.

Everyday marketers are facing challenges and getting many new opportunities within this digital age. Marketers are basically making use of electronic media to promote all the goods and services into the market. One of the major challenges the marketer has to deal with is to know how to persuade someone and how to come up with ways in order to attract and retain prospective customers. The issue could easily be solved by making or allowing customers to interact or talk

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about the brand through the use of digital media. Through this research the researcher would be focusing and talking about the importance of digital marketing for both customers and the marketers. This research is conducted to understand why digital marketing is more effective than traditional media and what the major differences between digital and traditional media are. This research will also show the major factors that affect the effectiveness of digital marketing in the era of digitisation, where every marketer is opting for digital marketing to promote his brand(s). The media consumption in India has gone through several unruly variations. Statistics reveal that we currently have over 350 million internet users in the country and about 80 % of the population is active through their smartphone devices. On the basis of user base and revenues for most global internet companies India is one of the largest markets. Internet is where the population spends maximum time especially young students and working executives, with the digital advertising spends accounting for a growth of over 2200 crore in December 2013 thus making it one of the most powerful brand communication platforms in the current scenario. Urban 15 suggests that “Digital marketing uses the internet and information technology to extend and improve traditional marketing functions”. It has a wide spread application across sectors, however in the current context with proliferation digital and social media have gained enormous popularity and are integral parts of the decision making of young students seeking higher education. Digitalization has changed the way information is conveyed and perceived by viewers/information seekers. At times the information conveyed through digital media may not be authentic and legitimate creating a scope for misleading the target audience. The paper aims to study how digitalization can mislead thus influencing decision making among a certain Target group taking Education Industry as a sample. It seeks to supplement the claim by relevant data of an institute to evaluate whether the information provided for marketing purpose is legitimate enough to take crucial decisions.

In this day and age of digital technology, marketers are confronted with a new set of obstacles as well as opportunities. The promotion of goods or services to potential customers through the use of digital marketing refers to the marketing industry's adoption of digital and electronic media. Attracting customers and providing them with opportunities to engage with a business through the use of digital media are the primary goals of digital marketing. This article focuses on the significance of digital marketing not just for businesses but also for the people who buy their products. We investigate how the use of digital marketing affects the revenue of the companies. In addition, the distinctions between traditional marketing and digital marketing are compared and contrasted during the course of this article. In this study, a variety of forms of digital

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marketing, as well as the effectiveness of digital marketing and its influence on a company's sales, were discussed.

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The article aims to show the role (benefits and challenges) of AI-powered digital marketing tools for marketers in the age of digital transformation. The considerations were related to the Polish market and a case study of LPP, a Polish clothing retailer. The starting point for this study was the analysis of the literature on the concept of artificial intelligence (AI) with reference to digital marketing. In the next steps, the results of the research on the Polish market conducted by the Digital Poland Foundation and presented in the report entitled "State of Polish AI 2021" were reviewed, and an application case study of the largest Polish clothing company – LPP – was conducted. The study is of an introductory and exploratory nature. It recognises the significant role of AI in digital transformation in the context of digital marketing in the Polish market. The implementation of solutions based on artificial intelligence algorithms, such as the Google Cloud, analytical platform and data repository, e-commerce infrastructure, chatbot, Genesys PureCloud, Google Dialogflow and the AI-based function in the PSIWms Warehouse Management System in LPP's distribution centre significantly improves the efficiency of online order processing without compromising the quality of products and order fulfillment time. By applying a case study analysis, the importance of AI-based tools in the digital transformation process, including digital marketing, in the Polish market was demonstrated. Marketers, including CMOs, were shown the benefits of applying AI-related technological solutions in the field of e-commerce optimisation and customer service.

The web is a source of public information, education, employment, government, commerce, health, entertainment, and many others, and every person, regardless of ability, has the right to access it. Imagine missing out on thousands of new customers because your competitor has an

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easier-to-use, WCAG-compliant website. This systematic literature review aims to analyze the empirical methods of evaluating accessibility to educational websites, disabilities, and errors. Some of the papers we will review here use automated tools, real users, or experts to evaluate web accessibility. After analyzing the results, we will determine if the websites comply or not with the Web Accessibility Content Guidelines (WCAG). Also, what are the differences between automated tools, real users, and experts in evaluating websites.

### **SUGGESTIONS**

- Analyze effective social media marketing strategies used by brands to engage with their audiences, build brand loyalty, and foster customer relationships.
- Analyze effective social media marketing strategies used by brands to engage with their audiences, build brand loyalty, and foster customer relationships.
- Investigate the benefits and challenges of integrating multiple digital marketing channels, such as email marketing, social media, content marketing, and search engine optimization (SEO), into a cohesive and effective marketing strategy.

### **CONCLUSION**

Digital marketing offers unparalleled opportunities for businesses to reach and engage with their target audiences across diverse online channels. The ability to precisely target specific demographics and measure campaign performance in real-time has revolutionized marketing practices. By implementing digital marketing practices a company can achieve a global standard. As digital marketing continues to evolve, businesses must remain adaptive and agile to stay ahead of the competition. Embracing emerging technologies, staying attuned to consumer preferences, and prioritizing ethical practices are imperative for sustainable success in the digital marketing landscape.

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## ANALYZING THE IMPACT OF SOFTWARE DEVELOPMENT PROCESS GAPS ON PROJECT DELIVERY – A GAP ANALYSIS STUDY

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### ABSTRACT

Software development process is often affected by gaps and challenges that can impact project delivery. These gaps can arise from several factors such as poor communication, inadequate testing practices, insufficient documentation, and budget allocation issues. This study analyzes the impact of software development process gaps on project delivery at Mako IT Lab and identifies potential solutions for addressing these gaps. The primary objective is to analyze the impact of software development process gaps on project delivery, while the secondary objectives include identifying the level of adoption of agile methodology in software development processes, evaluating communication practices, assessing the documentation process, analyzing testing practices, and assessing the impact of budget allocation on project delivery. The study's scope is limited to Mako IT Lab, and the findings may not be generalizable to other industries or companies. The study found that the adoption of agile methodology in software development processes is generally satisfactory, but gaps in communication practices and testing processes can impact project delivery. The study highlights the need for further investigation into the testing process and communication practices to improve project delivery. Overall, the study suggests that agile methodology and documentation practices are effective in software development processes, and job roles and departmental communication should be considered when addressing gaps in the testing process.

**Keywords** *Software development process gaps, Project delivery, Agile methodology, Communication practices, Documentation process, Testing practices, Budget allocation.*

### INTRODUCTION

The software development process is a complex process that involves several stages and activities, and the success of a software project depends on the effectiveness of the development process. (Crispin 2010) However, the software development process is often affected by gaps and challenges that can impact project delivery. These gaps can arise from several factors such as poor communication, inadequate testing practices, insufficient documentation, and budget allocation issues.

According to a survey by the Standish Group, only 29% of software projects are successful, while 19% of projects are deemed to be complete failures. (Standish Group. 2015) This highlights the need to identify and address gaps in the software development process to improve project



delivery. To address these gaps, companies need to adopt effective software development practices and methodologies that help identify and mitigate these issues.

In this study, we analyze the impact of software development process gaps on project delivery at Mako IT Lab and identify potential solutions for addressing these gaps. The primary objective is to analyze the impact of software development process gaps on project delivery, while the secondary objectives include identifying the level of adoption of agile methodology in software development processes, evaluating communication practices, assessing the documentation process, analyzing testing practices, and assessing the impact of budget allocation on project delivery.

The study will use a gap analysis approach to identify and evaluate gaps in the software development process and their impact on project delivery. The study will also employ a survey to collect data from employees at Mako IT Lab to assess the level of adoption of agile methodology and identify potential gaps in its implementation. The findings of the study will provide insights into the adoption of agile methodology, communication practices, documentation process, testing practices, and budget allocation, and their impact on project delivery at Mako IT Lab.

Agile methodology is one such approach that has gained popularity in recent years as it promotes flexibility and collaboration throughout the software development process.(Stray et al. 2020) Agile methodologies enable software development teams to adapt to changing requirements and improve communication between team members, leading to better project delivery. The adoption of agile methodology can help address communication gaps and improve testing practices in software development projects.

Despite the benefits of agile methodologies, there are still challenges associated with its implementation. For instance, there may be resistance to change, and it can be challenging to adopt new practices and methodologies. (Crispin 2010) It is therefore important to understand the level of adoption of agile methodologies in software development processes and identify potential gaps and challenges in their implementation.

Effective communication is essential for successful project delivery. However, poor communication practices can lead to delays, misunderstandings, and project failures. Therefore, this study also evaluates communication practices at Mako IT Lab and identifies potential solutions for addressing communication gaps.

Documentation is another critical aspect of software development processes that can impact project delivery. Documentation ensures that project requirements are clearly defined, project progress is tracked, and project outcomes are achieved. Therefore, this study assesses the

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documentation process at Mako IT Lab and identifies potential solutions for improving documentation practices.

Testing is an essential component of software development processes that ensures that the software meets the desired quality standards. However, testing can be a time-consuming and resource-intensive process that can impact project delivery. Therefore, this study analyzes testing practices at Mako IT Lab and identifies potential solutions for addressing gaps in the testing process.

Finally, budget allocation is a critical aspect of project management that can impact project delivery. Therefore, this study also assesses the impact of budget allocation on project delivery at Mako IT Lab.

Overall, this study aims to provide a comprehensive analysis of software development process gaps and potential solutions for improving project delivery. The study highlighted the need for further investigation into the testing process and communication practices to improve project delivery. The study also found that employees believe that documentation helps to avoid misunderstanding and delay in project delivery, and budgets were properly utilized. The study also found that there is a significant relationship between project delivery and the agile methodology, communication, documentation, testing, and budgeting process of the software development process at Mako IT Lab. The study's findings can be used by software development teams, project managers, and organizational leaders to address gaps in their software development processes and improve project delivery.

Certainly, there are many other factors that can impact project delivery beyond the software development process itself. Engaging with stakeholders is important to ensure that their expectations are met and their feedback is incorporated into the project. Poor stakeholder engagement can lead to delays or a final product that doesn't meet their needs. Availability of resources such as funding, equipment, and personnel can impact the project timeline and deliverables. Insufficient resources can result in delays or compromises in quality. Effective project management is crucial for keeping the project on track and ensuring that it meets its objectives. Poor project management can lead to missed deadlines, miscommunication, and project scope creep. (Razzaq, M. S., & Abid, M. A. 2020) The culture of an organization can have a significant impact on project delivery. A culture that values collaboration, communication, and innovation can help facilitate successful project outcomes. (Beg, R., & Bano, M. 2018) External factors such as changes in regulations or market conditions can impact project delivery. For example, new regulations may require changes to be made to the project, or changes in market conditions may require a shift in project priorities. It is important for organizations to consider

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these factors when evaluating their software development process and its impact on project delivery. Addressing these factors can help improve the likelihood of successful project outcomes.

## **LITERATURE REVIEW**

### **Communication**

The Study highlights the importance of communication and information sharing in software engineering, as well as the influence of beliefs and folklore on software development practices. The paper presents an industrial case study using a qualitative approach to investigate the origins and impacts of beliefs on software development team practices. The study aims to improve team practices in the software engineering industry by understanding the creation and evolution of technical beliefs. Additionally, the paper discusses the significant impacts of two frameworks, RE and RCM, in the global software development environment. Overall, the passage emphasizes the need for a better understanding of the role of beliefs and communication in software engineering to improve practices and processes in the industry. (Mendonca, M. 2011)

### **Software Development Process**

The rapid growth of global software development presents numerous challenges, particularly in the areas of requirements engineering (RE) and requirements change management (RCM). These activities require rich communication and are made more challenging by geographical and cultural differences. In this study, the importance of project management in RE and RCM processes is investigated. Specialized project management frameworks are proposed for RE and RCM, and a survey and blind interviews with experts are conducted to validate the proposed frameworks. Statistical tools are then used to analyze the collected data. The results indicate that both frameworks have significant impacts on the success of software development projects in a global environment. Overall, this study highlights the importance of effective project management in addressing the challenges of global software development. (Soofi, A. A. 2018)

### **Agile Methodologies**

In summary, the research suggests that agile methodologies, such as Scrum and Kanban, can be effective in managing software development projects. However, the effectiveness of these methods in addressing project management factors may vary. While both Scrum and Kanban can lead to successful project development, Kanban may be better suited for managing project schedules. Further research is needed to explore the effectiveness of these methods in addressing other project management factors, such as budget handling, risk control, quality of the project, available resources, and having a clear project scope. Nonetheless, the adoption of agile

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methodologies in software development processes can help organizations become more flexible, efficient, and responsive to changing market needs. (Ozcan, P. 2017)

### **Documentation**

Documentation practices are also critical in software development projects, as they help ensure that project requirements and deliverables are clearly defined and communicated to all stakeholders. Effective documentation practices include the use of standardized templates, clear and concise language, and regular updates to project documentation (Chandra, 2017).

According to (Hoda et al. 2010), documentation is a vital communication tool that provides a common understanding of the software system's purpose, design, and functionality. The study found that developers often overlook the importance of documentation, leading to misunderstandings, errors, and delays in project delivery. The authors recommend that software development teams should adopt a documentation strategy that is tailored to their project's specific needs.

### **Testing**

In a study conducted by (Yilmaz et al. 2018), the authors found that a lack of testing was one of the main reasons for software project failures. They also found that testing was often an afterthought in the development process, which led to poor quality software. The authors proposed a solution that involves integrating testing into the development process from the beginning to ensure that testing is an integral part of the development process.

In a study conducted by (Ameen et al. 2021), the authors found that a lack of resources and time was a major factor that impacted the testing process. They also found that communication between team members was often poor, which led to delays and misunderstandings in the testing process. The authors proposed a solution that involves allocating sufficient resources and time for testing, and improving communication between team members to ensure that testing is done efficiently and effectively.

### **Budget**

A study by (Dingsøyr et al. 2012) found that budgeting is a complex process that requires careful consideration of the project's scope, timeline, and resources. The study highlighted the importance of having a clear understanding of the project requirements to ensure that the budget is allocated appropriately.

A study by (Liu et al. 2018) focused on the impact of budget allocation on software development project outcomes. The study found that budget allocation is a critical factor that affects project success. The study also highlighted the importance of aligning budget allocation with project goals and requirements to ensure successful project delivery.

Another study by (Lwakatare et al. 2016) explored the challenges faced by software development teams during the budgeting process. The study found that one of the major challenges is the lack of accurate estimation of project costs, which can lead to inaccurate budget allocation. The study recommended that software development teams should use historical data and metrics to improve the accuracy of cost estimation.

## **METHODOLOGY**

Considering the population of employees at Mako IT Lab is homogenous in terms of their roles and responsibilities related to software development processes, a probability sampling method is used to select a sample of employees to participate in the survey. The sample size for this study is 107, depending on the size of the population of the employees of the organization. Primary data was collected through a questionnaire. The data were collected through a questionnaire that was circulated to all the clients using Google Forms and has been analyzed using the linear scale method.

The primary objective is to analyze the impact of software development process gaps on project delivery, while the secondary objectives include identifying the level of adoption of agile methodology in software development processes (Kaur, H., & Singh, M. 2019), evaluating communication practices (Lethbridge, T. C. 2003), assessing the documentation process (Devasena, R., & Kavitha, R. 2016), analyzing testing practices (Jahanzaib, M., Arshad, M. J., & Ahmad, R. 2015), and assessing the impact of budget allocation on project delivery (Manickam, S. S., & Marimuthu, G. 2017).

The study's scope was limited to analyzing the impact of software development process gaps on project delivery, and while it covers several areas such as communication, testing, documentation, and budget allocation, other factors may have influenced project delivery that were not examined in this study. External factors such as market changes, industry disruptions, or changes in management practices could have influenced the study results, and these were not accounted for. The study's timeframe was limited to a specific period, and the findings may not reflect changes in the software development process over time.

## **RESULTS**

The study utilized a survey method to collect data from employees of Mako IT Lab belonging to different demographics.

**Table 1: Demographic Data**

Question	Options	Frequency	Percentage
Age	21 - 30	94	88
	31 - 40	13	12
	41 - 50	0	0
	<b>Total</b>	<b>107</b>	<b>100</b>
Gender	Male	83	78
	Female	24	22
	<b>Total</b>	<b>107</b>	<b>100</b>
Job Role	Developer	65	61
	Growth Consultant	13	12
	Business Analyst	22	21
	Implementation Engineer	7	7
	<b>Total</b>	<b>107</b>	<b>100</b>
Department	Development	63	59
	Growth	19	18
	Implementation	12	11
	Presales	5	5
	Quality Analyst	6	5.2
	Design	2	2
	<b>Total</b>	<b>107</b>	<b>100</b>
Experience	1 - 3 Years	58	54
	4 - 6 Years	33	31
	7 - 9 Years	12	11
	10+ Years	4	4
	<b>Total</b>	<b>107</b>	<b>100</b>

It shows that 88% of respondents are belongs to 21-30 Years and 12% of respondents were belongs to 31-40 Years, 78% of respondents are male and 22% of respondents are female, 61% of respondents are Developers, 12% of respondents are Growth Consultants, 21% of respondents are Business Analyst, 7% of respondents were Quality Analyst and 59% of respondents are from Development, 18% of respondents are from Growth and 11% of respondents are from Implementation, 5% of respondents are from Presales, 6% of respondents are from Quality

Analyst, 54% of respondents have 1 – 3 Years’ experience, 31% of respondents have 4 – 6 Years’ experience. The demographics of the respondents showed that a majority of the responses were from male employees between the age categories of 21-30 years with 1-3 years of work experience as a developer under the development team.

**Table 2: Analysis/Result**

Test	Value
Pearson Chi Square	.015
One-way Anova	.003
Independent Sample T-Test	.805
Correlation	0.01
Regression	.794

Chi-Square Test has been done between “Job Role \* Department”. Is there a relationship between job roles and their department in Mako IT Lab is identified using the Chi-Square test. As per the p value which is lesser than 0.05 i.e.(0.015 < 0.05) hence Reject Ho and Accept H1, there is a significant association between Job Roles and the departments of the Mako IT Lab.

Anova Test has been done between “How satisfied are you with the overall testing process at Mako IT Lab? \* Job Role”. Are the employees of Mako It Lab is satisfied with the current testing process is identified using this anova test. As per the p value which is lesser than 0.05 i.e.(0.003 < 0.05) hence Reject Ho and Accept H1, there is a significant difference between job role and the employee’s satisfaction with the overall testing process at Mako IT Lab. It is clearly shown that the employees in Mako IT Lab are not satisfied with the current testing process.

Independent Sample T-test has been done for “To what extent do you agree that the budget allocated for software development projects is aligned with the project requirements and goals at Mako IT Lab?” This is used to understand whether the budget allocated for developing the projects meets the requirements and goals of the project in the company?? As per the p value which is greater than 0.05 i.e.(0.805 > 0.05) hence Accept Ho and Reject H1, there is a no significant difference in budget allocated for software development projects is aligned with the project requirements and goals at Mako IT Lab. It is clearly shown that the employees are agreeing that the budget allotted for the projects are meeting the requirements and goals of the projects.

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Correlation between agile methodology and testing process is verified using correlation test which resulted in 0.01 significant level which is positively correlated. It is clearly shown that the testing process and agile methodology are positively correlated hence integrating testing process in the agile methodology results in better testing process and improve the quality the project and avoids delay of the project delivery.

Using the Regression test, identified that the dependent variable has more influence from independent variables, From the value it is clearly that there is significant influence between project delivery and the agile methodology, Communication, Documentation, Testing and budgeting process of the software development process at Mako IT Lab. There is a 78% influence in the project delivery. All the factors like agile methodology, communication, documentation, testing, and budgeting, highly influence the project's delivery.

From the mean analysis, it was found that the employees at Mako IT Lab are satisfied with the current level of adoption of agile methodology in the software development process, and they are also aware of agile principles and values, which makes them make use of it frequently and effectively, there are no communication gaps among teams at Mako IT Lab, employees are satisfied with the current communication process, and they are comfortable communicating with the team members. The drawback is that, they have miscommunications while communicating with team members that impact project delivery, and the employees at Mako IT Lab believe that documentation helps to avoid misunderstandings and delays in project delivery. They also stated that the documentation process is clear, easily accessible, regularly updated, and standardized across all the projects.

## **DISCUSSION**

The present study aimed to investigate the impact of software development processes on project delivery at Mako IT Lab. The study utilized a survey method to collect data from employees of Mako IT Lab belonging to different demographics. The demographics of the respondents showed that a majority of the responses were from male employees between the age categories of 21-30 years with 1-3 years of work experience as a developer under the development team. The study employed various statistical tests like the Chi-Square Test, Anova Test, Independent Sample T-test, Correlation Test, and Regression Test to analyze the data.

The Chi-Square Test was used to analyze the association between job Roles and the departments of the Mako IT Lab. The study suggested that the job roles are perfectly fitted into the department, so there is a structured process in developing software which is associated with the project delivery. Increasing the strength of the department will helps to assign projects based on resource availability which supports to deliver project on time.



The Anova Test was used to analyze the satisfaction level of employees with the overall testing process at Mako IT Lab. The study suggested that increasing the frequency of testing would improve overall satisfaction with the testing process among employees at Mako IT Lab.

The independent sample t-test was used to analyze whether the budget allocated for developing the projects meets the requirements and goals of the project in the company. Integrating the testing process in the agile methodology results in a better testing process, improves the quality of the project, and avoids delays in project delivery.

The regression test was used to identify the influence of independent variables like agile methodology, communication, documentation, testing, and the budgeting process on project delivery. The results showed that all these factors highly influence the project delivery, and improving all the factors would increase the overall satisfaction of the project delivery in the software development process at the Mako IT Lab.

Overall, the study suggests that improving the software development processes in terms of communication, documentation, testing, budgeting process, and the integration of agile methodology helps in better project delivery, reduces miscommunication issues, and increases the overall satisfaction of the project delivery at Mako IT Lab. The study also provides insights into the demographics of the employees, their satisfaction level with the current software development processes, and areas that need improvement. The study can be used as a guide for software development companies to improve their processes and increase the overall satisfaction of project delivery.

While this study provides valuable insights into the software development process at Mako IT Lab, there are several other factors that were not investigated in this study that could be explored in future research.

Firstly, the study did not look into the impact of leadership styles on software development processes. Secondly, the study did not investigate the impact of employee motivation and job satisfaction on software development processes. Thirdly, the study did not examine the impact of cultural differences on software development processes. Mako IT Lab operates in an international business environment, and cultural differences among team members can impact communication and collaboration within the team. Future research could investigate how cultural differences impact software development processes and identify strategies for effectively managing cultural differences in software development teams. Fourthly, the study did not investigate the impact of project management methodologies on software development processes. Mako IT Lab primarily uses agile methodology, but there are other project management methodologies such as Waterfall, Prince2, and Scrum. Finally, the study did not investigate the

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impact of technological advancements on software development processes. With the rapid pace of technological advancements, there are new tools and technologies available that can impact software development processes. In conclusion, while this study provides valuable insights into the software development process at Mako IT Lab, there are several other factors that were not investigated in this study that could be explored in future research. Exploring these factors will provide a more comprehensive understanding of the software development process and identify strategies for improving project delivery in software development organizations.

### **Practical Implications for Asian Business**

The study on the software development process at Mako IT Lab has several practical implications for Asian businesses. The findings of the study highlight the importance of adopting agile methodology, improving communication and documentation processes, increasing the frequency of testing, and aligning the budget with project requirements and goals to improve the quality and delivery of software development projects.

Asian businesses can learn from the Mako IT Lab case study and implement these practices to enhance their own software development processes. By adopting agile methodology, Asian businesses can promote collaboration, flexibility, and iterative development, which can lead to improved project outcomes. In addition, improving communication and documentation processes can help avoid miscommunication and delays, resulting in more efficient and effective project delivery.

The study also found that the employees at Mako IT Lab are satisfied with the current level of adoption of agile methodology in software development process. This is a positive finding as it indicates that the company is on the right track in terms of implementing this methodology. However, there is always room for improvement. To enhance the use of agile methodology, Mako IT Lab should consider providing more training and support to employees. This will help ensure that they fully understand the principles and values of agile methodology and are able to use it more effectively.

The study also highlighted the importance of proper documentation in avoiding miscommunication and delays in project delivery. Mako IT Lab needs to focus on improving the quality of its documentation and ensuring that it is easily accessible and standardized across all projects. This can help reduce misunderstandings and ensure that all team members are working towards the same goals.

Finally, the study identified the influence of several factors on project delivery, including agile methodology, communication, and documentation, testing, and budgeting. To improve project delivery, Mako IT Lab needs to focus on all of these factors and ensure that they are working

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together effectively. This can help improve the overall satisfaction of employees and clients and lead to greater success in the Asian business market.

Overall, the study provides valuable insights for Asian businesses seeking to improve their software development processes. By adopting agile methodology, improving communication and documentation processes, increasing the frequency of testing, and aligning the budget with project requirements and goals, businesses can improve the quality and delivery of their software development projects. The research conducted on Mako IT Lab has revealed several important insights that can have practical implications for Asian businesses. These include the importance of improving communication channels, increasing the frequency of team meetings, increasing the frequency of testing, providing more training and support for agile methodology, improving documentation quality and accessibility, and focusing on all factors that influence project delivery. By addressing these issues, Mako IT Lab and other Asian businesses can improve their productivity, efficiency, and overall success in the marketplace.

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# AN OVERVIEW OF UNSUPERVISED DATA ANALYSIS METHODS FOR EFFICIENT COMPUTATIONAL RECOGNITION OF TAMIL CHARACTERS

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## ABSTRACT

The Tamil language is a Dravidian language that is known for its large morphological vocabulary. In addition to that, it has a large number of letter combinations that together make up a single word. Because of the wide variety of people's handwriting, which may or may not be easy to comprehend, as well as the size variation and angle of the letters, it is extremely difficult to determine the precise meaning of a handwritten expression that is presented in its genuine word context. In order to solve this problem, the concept of deep learning algorithms is proposed in this paper. These algorithms are used to classify the letters in digital form and to recommend that the combination of letters obtained through deep learning results in improved performance as well as good accuracy. The method entails the recognition of visual characters in order to acquire feedback for the model, as well as the construction of a model through the utilization of neural networks. The dataset that was utilized for this study was obtained from HP-Labs India. A huge dataset contains over 60,000 samples of isolated Tamil letters written by a variety of individuals. The Tamil text classification is often used to describe individual letters from handwritten papers that are of greater significance and are more difficult to recognize. Examples of such documents include certificates, land deeds, invoices, and other similar items. In the work that was proposed, a comparison of the CNN model and the VGG16 model was carried out for the classification of Tamil text using the dataset from HP Labs India. According to the findings, CNN performs significantly better than VGG16 in terms of the amount of computational time it requires while maintaining a high level of accuracy for prediction.

**KEYWORDS** *Deep learning, Optical Character Recognition, HP Labs India, Handwritten Tamil letters*

## INTRODUCTION

In the modern era, it takes a lot of effort to find information and edit the content of pictures that are included in backdrop images. The concept of Optical Character Recognition (OCR) arises as a solution to this problem. OCR's primary calculating method is AI, making it a crucial tool for research and development in artificial intelligence. With optical character recognition (OCR), you may convert the characters you find in paper documents, digital images, and scanned documents into a usable text format. When dealing with a large number of data, the traditional

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console approach of entering the information from printed reports, checked records, and pictures into the PC is inefficient. In order to digitise this data without the assistance of humans, optical character recognition technology is used. Some OCR software lets you scan a document and turn it into a Word document in a single operation. Although optical character recognition (OCR) was designed for printed text, it has since proven useful for recognising and validating handwritten writing as well. Postal services, for instance, utilise OCR software to automatically sort mail and packages according to the recipient's address. An algorithm compares the data from the scan to a list of known addresses in order to verify the accuracy of the given mailing address. Tamil character recognition (TCR) is a challenging part of improving character recognition overall. Variations in size, style, and orientation make it extremely challenging to recognise handwritten Tamil characters. Character editing and reprinting of text documents printed on paper is time-consuming and inaccurate. Its purpose is to extract editable text from a digitised image by locating and modifying individual characters. The optical handwriting recognition system developed for the Tamil language has a relatively poor recognition rate because of the wide variety of writing styles used and the enormous number of letters in the language. Different investigation has been proposed for printed Tamil text, despite the fact that it is the most challenging mission. The deep learning technique has been employed in recent studies to improve the precision of the input text.

## **REVIEW OF LITERATURE**

### **Deep Neural Networks**

A method for recognising Tamil characters and digitising them via deep learning was proposed by Sasipriya N et al., The suggested system details the model's underlying architecture, which includes a convolutional model and then passes the recognised text through a Unicode mapping process to be converted into a machine-readable format. The letters and other characters are stated to be stored in Unicode mapping by being assigned a unique number. In the end, it shows that the HP Labs India dataset was used to achieve a high degree of accuracy after being run through 100 epochs. In addition to the Fourier Descriptors, the Back propagation algorithm was introduced by Ishwarya.M.V et al., According to the textbook definition, back propagation entails fine-tuning the weights of an error rate determined in earlier iterations. The dataset they used was compiled from the IWFHR 2006 competition in France for handwriting recognition, and it included photographs written by both men and women of varying ages. To minimise the test rate by 5% and the train rate by 8%, as shown before the definition, features are recovered from the Fourier descriptors using the Back propagation technique. Using the multilayer perceptron with one hidden layer, J. Sutha et al. suggested a method. In order to complete the feature extraction

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procedure, Fourier descriptors were used. By incorporating some hidden layer nodes into the analysis for character recognition, a high degree of accuracy can be achieved. Datasets were acquired from male and female candidates with a variety of handwriting styles for model training. The study of the results shows that the accuracy can be improved by increasing both the number of nodes and the number of epochs. S.Kowsalya et al. developed a modified neural network assisted by elephant herding optimisation. In order to gauge how well Elephant herding optimisation performs compared to other existing Tamil character recognition methods, a comparison needs to be made. They have used a collection of people's handwriting samples to train the model. Here, a 1.9GHz Intel Core i3 processor and 4GB of RAM are employed as the base system requirements. In the analysis phase, the conventional neural network is adapted using an optimisation technique, resulting in a training accuracy of 93%. J.Sutha et al. suggested a neural network-based character recognition approach employing a multilayer perceptron with a single hidden layer. On which the operation is performed using the Fourier descriptor method and the back propagation algorithm. The datasets employed herein were compiled using the handwriting of a wide range of male and female participants over a wide age range. The study of the results shows that a 97% recognition accuracy can be achieved by combining the Fourier descriptor with a back propagation network. M.Sornam et al. developed a novel method for the systematic classification of old Tamil palm leaf manuscripts using a combination of the CART algorithm and a radial basis function (RBF) network. Scanned palm leaf photos were pre-processed by being converted to a greyscale image, and then a medium filter was applied to reduce noise. The medicine for childhood illnesses, Kuzhanthai Pini Maruthuvam, is included in the dataset we used. The CART method, which uses RBF and the Gini index together, achieves a total accuracy of 98.2%, while RBF-NW achieves 98.4%. Character recognition was achieved through the application of deep learning by Rohan Vaidya et al. As cloud-based services like Google Cloud Platform and Amazon Web Services offer resources to train a neural network, the amount of processing power required to train a neural network has increased in recent years. Tensorflow was used for the backend processing. They have collected a large variety of images from the NIST collection. Currently, their technology can only recognise alphabetic characters and numeric digits during the analysis phase. The issue is outlined, and a solution using deep convolutional neural networks is provided, by Jagan Mohan Reddy et al., They present a novel method for character recognition in Tamil using Deep CNN. Including both men and women of varying ages, it exhibits a wide range of handwriting styles. According to the findings, convolutional neural networks achieve higher accuracy (94%) in Tamil language recognition than other methods. Using the deep learning techniques, Bhargav Rajyagor et al., have provided a

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method for recognising the character. To improve efficiency and accuracy, it employs deep learning to zero in on relevant visual features before performing character recognition. Data from the HP India laboratories are used. Based on the results of the analysis, it may be determined that research into a technique that can immediately transform the hand written character into digital form is warranted. It was accurate to the tune of 97.7 percent.

For Tamil letter recognition, N.Ram Prashanth et al., presented a deep learning methodology that would investigate how well deep belief networks classify handwritten Tamil vowels and compare the results to existing methods. Morphological erosion and dilation, two Deep Learning approaches, are employed here. The DBN character recognition system is utilised, which has a history of producing low mistake rates on a variety of widely used datasets. The effectiveness of the DBN network is evaluated in terms of its ability to recognise handwritten Tamil vowels, both in terms of results and accuracy. It has been determined that 98.89% accuracy is reached. Character recognition in automated data entry applications is made possible thanks to a method provided by Baki Koyuncu et al. The methods of deep convolutional neural networks (DCNN) and handwritten character recognition are employed here. In this case, millions of photos from the ImageNet dataset are used to train the model. Why convolutional networks succeed where standard back propagation techniques fail remains unclear. Convolutional networks may solve difficult frameworks by breaking them down into smaller ones, but this may just be how they work. V.Karthikeyan implemented a character-recognition-based Hilditch's method. The hilditch algorithm's groundwork and the structural properties of the character in question form the basis for the picture preprocessing process. The hilditch algorithm and handwriting recognition were employed for this purpose. In this case, the model is trained using data collected by HP Labs. This data includes a wide range of languages for use in computing the input, as well as a dataset comprising both individual letters and word combinations. These algorithms and patterns are used for character recognition in the pre-processing stage. Accordingly, this type of image processing is relevant in both the theoretical and practical senses.

To digitise historical manuscripts, Preethi N et al., suggested a language-specific offline character recognition method based on a neural network classifier. Feature extraction and a neural network classifier are the main methods of analysis employed here. In this case, the datasets utilised are the digitised versions of the documents that serve as the system's input. After that, it undergoes a series of preprocessing procedures to prepare for the process it will ultimately undergo and improve its accuracy. English and Tamil text are included in the input, and Murugan N. et al., present a method to recognise both languages. This work will help in distinguishing between the English and Tamil alphabets. The model is trained using neural networks with datasets that

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include both English and Tamil images for computation. Accuracy improves when there are fewer typos or distorted characters and a comparable process is taking place in the background. The precision might increase or decrease, depending on the handwriting. The Tamil text needed for recognition is computed by V.Elakkiya et al., Character recognition speed and accuracy have both been improved because to the employment of the k-nearest algorithm in the classification phase. For this character recognition calculation, the k-nearest neighbour algorithm was utilised. All of the characters plus a random selection of 2000 photos form the basis of the dataset used here. Using the classifier as a model, it obtains a 91% success rate.

### **Convolutional Neural Networks**

According to Batuhan Balci et al.'s method, LSTM and CNN can be used together to recognise Tamil characters. The method uses a convolutional neural network (CNN) to develop a model and train samples, and an LSTM (Long Short-Term Memory Networks) and a CNN to form bounding boxes for each character; after the model is complete, it is sent to a CNN, which then classifies the data. Isolated photos of a variety of Tamil handwritings may be found in the dataset utilised here, which is part of the IAM handwriting dataset. In order to get a high level of accuracy while employing deep learning, the results of classifications show that more data sets are needed. Character recognition for Tamil letters was categorised using ConvoNet architecture, according to Arun Prakash A et al., It takes 3D volumes as input and produces new 3D volumes with new operations applied to them as output. The procedure consists of two convolutional layers, two fully linked layers, and a final ReLu function layer. The classifications are calculated using soft max in the last layer. They used the HP Labs India dataset, which contains around 60,000 samples. When compared to methods that only account for and reduce the rate of error when dealing with letters sharing the same sequence of properties, the proposed method's low accuracy is largely attributable to the presence of miss-classified letters in the output. Using a convolutional neural network for feature extraction and training with a deep learning model, Kavitha B.R. et al., establish a standard for character recognition HTCR with offline handwritten Tamil characters. The hpl-tamil-iso-char dataset utilised here is sourced from HP Labs India and includes roughly 60,000 images of isolated letters. By using CNN as the model, it is possible to achieve an overall analytical accuracy of 95.16 percent. Blind persons and others who use reading aids can benefit from a technique provided by Deepa M et al., for recognising bank documents and transforming any handwritten document into structured documents. The computation is performed by use of multilayer convolutional neural networks. Images of Tamil alphabets created by a variety of people are used to train the model. Its accuracy of 90.19% comes from an analysis that employed a small subset of characters to train the model. However, this analysis does not



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account for variations in writing style or font size. M.V.Ishwarya implements neural networks to enhance character recognition. That's because to the CNN's character recognition features for Tamil script on the web. In addition to the CNN, it also employed a Back-propagation technique. The IWFHR dataset they've been using since 2006 came from a competition in France of the same name. When the Fourier descriptor is used in conjunction with a back propagation network, it is able to correctly identify 95 percent of handwritten Tamil characters. In order to recognise these characters with the help of convolutional neural networks, Ram Kumar S et al., suggested a method of digitalization of Tamil handwritten characters. This is digitised into the HP Labs India dataset in order to get over the problem of paper preservation. Based on this analysis, it seems plausible that we should pursue the creation of techniques that can immediately digitise handwritten text with an accuracy of 97%. A technique for employing deep learning to categorise individual handwritten words is described by Batuhan Balci et al., This method incorporates both CNN and LSTM. In this case, the model is trained using data from the IAM dataset, which includes a larger pool of images containing a raw image of Tamil characters. Just like we discussed above, this scenario calls for convincing and powerful training that can make use of various pre-processing methods, including jittering. To normalise the data, we may divide every pixel by its standard deviation. Using a convolutional neural network trained on the IAM dataset, Keshav Gupta et al., present a system for ranking the popularity of handwritten text. The network will be able to interpret the handwritten text and return results. In this case, they utilised RNNs, CNNs, and a connection list temporal classification technique. The back end is implemented with Tensorflow. The multi-layered structure of the neuronal community is a key component in its efficacy in training. Accuracy increased to 71.232323% while error reached 12.06655%. Using a combined deep learning network, Kapil Mehrotra et al., assess the recognition performance of a CRNN (Convolutional Recurrent Neural Network) on papers written in Indian languages. CNN, RNN, and OCR are the technologies deployed here. Collection of handwritten data totalling five thousand pages. Therefore, the system accommodates input text lines with images of variable size, making predictions of varying lengths. The necessity for manually crafted features is reduced because to the CNN. Python's method for under machine learning to recognise digits and alphabets was first presented by Pratik Sharma. To show how by utilising dependable programming languages like Python and cutting-edge Python modules like scikit-learn and Numpy. Included in its nearly 49,000 image samples are both alphabetical and numeric characters. Putting current computing tools to use in relevant contexts can unlock several possibilities for future computations of a similar nature. Neha Gautam et al., have chosen a small sample of Brahmin words and trained deep convolutional neural networks to recognise them.

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Accordingly, he proposed a deep convolutional neural network (DCNN) for Brahmin word recognition and a set of experiments to be conducted on the canonical Brahmi dataset. All the letters of the Brahmin alphabet are included in this standard dataset. If the dataset is completely devoid of any letters from other languages, it achieves an accuracy of 92.4%.

### **Support Vector Machine**

The hybrid decision tree has been proposed as a solution for Tamil character identification by M. Ramanani et al., Also included is a multi-class classification method for identifying Tamil characters, based on a hybrid decision tree constructed from binary support vector machines (SVMs). In this case, they utilised the Tamil OCR, SVM, and hybrid tree methods. A collection of data containing 12400 individual letters of Tamil. A look at the data shows that by combining DAG and UDT SVMs with a limited set of features consisting of basic density, transition, and HOG, they were able to get a recognition rate of 98.80 percent. With the blur images on the dataset, Ammar Tahir et al., offer a novel that supervised the learning technique with the support vector machine. SVM was used as a recognition approach in this case. They used the HP labs India dataset, which includes around 60,000 images of isolated Tamil letters written in a variety of styles. Even if 90% accuracy was reached, this is still not the best outcome possible. Support vector machines have better generalisation capabilities, which is why they perform so well. A.Muthukumar et al., describe a novel approach to introducing CNN and SVM algorithms together. In order to train the model for Tamil character recognition, the algorithms are used as an efficient way. CNN, SVM, and TCR are all character recognition techniques. In this case, we make use of HP labs India's dataset, which consists of millions of labelled photos utilised for model training. The recognition accuracy is calculated using an approach that looks into each individual Tamil character using a CNN-SVM classifier combination. An improved feature extraction method facilitates the examination of these handwritten characters. Utilise segmentation approaches based on Ancient character recognition, P.Balasubramanie et al., offer a novel approach to utilise hybrid feature extraction and the multiclass SVM. Following segmentation, character recognition is achieved through the integration of hybrid feature extraction and a multiclass support vector machine (SVM) classification strategy. Segmentation, feature extraction, and hybrid methods are all part of the ancient character recognition toolkit. We use a dataset consisting of individual Tamil words that was created by HP Labs India. The results discussion notes that overlapped character segmentation is used to do character segmentation following the pre-processing step. Next, we perform character recognition by combining a multi-class support vector machine (SVM) classification strategy with hybrid feature extraction.

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The picture sizes for unconstrained handwritten Tamil character recognition using the SVM are compared by N.Shanthi et al., Documents of varying handwriting styles on A4 paper form the basis of the dataset acquired from various authors. According to the evaluation results, when compared to other models on SVM, it achieves an accuracy of 87.4 percent. Text classification is introduced by Soumick et al., who use an SVM enhanced with multithreading and CUDA on a dataset comprised of images from a personal collection, each of which has been labelled with its own category. All of the data sets utilised to evaluate the performance of the system show that the SVM with the One-Vs.-Rest approach employed in the current study is very accurate. A technique for recognising Tamil characters was proposed by Muhammad et al., who advocated for its use to multiclass SVM classification with Hybrid feature extraction. The findings obtained demonstrate more efficiency thanks to the suggested method in comparison to other current approaches in terms of classifier accuracy, memory size, and training time. The procedures of SVM, character recognition, and feature extraction are being carried out. Collection of information consisting of handwritten black numerals and letters on white paper. When compared to similar approaches dealing with the handwritten character identification problem, the suggested feature extraction strategy and subsequent training of the support vector machine classifier demonstrate considerable improvements in speed, memory usage, and classification accuracy. The conversion method and the recognition are introduced in a study by C.Suresh kumar et al., The software that performs the document analysis necessary to transform a handwritten document into an editable printed one. SVM, SOM, FNN, RBF, RCS, and BPN are all central to a set of related methods. Java neural network is used to implement character recognition. The Tamil alphabet is used as the training set for the model. According to the results analysis, the document is read, pre-processed for feature extraction and recognition, and the recognised text is shown in a picture box. Using Gabor filters and support vector machines, R.Ramanathan et al., suggested a method to recognise the Tamil typeface. The purpose of this proposal is to use the SVM to recognise different Tamil typefaces. Gabor filters, support vector machines, and optical character recognition (OCR) are employed here. The model is trained using data from Hp laboratories in India. SVM model delivers good accuracy of around 99% even with 216 examples. The model that was tested with varying numbers of training data points. Adjusting the Gamma and C parameters in the SVM formulation helps to fine-tune the algorithm for optimal performance. To complement the SVM, M.Ramani et al., devised a hybrid decision tree approach. The Tamil characters are recognised by multi-class classification utilising binary support vector machines structured as a hybrid decision tree. It includes a total of 12000 image samples that can be used to develop the model for classification. A novel OCR-based hybrid

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decision tree was presented, and when applied to the dataset, it achieved a recognition rate of 98.80 percent using the DAG and UDT AVM.

### **Artificial Neural Networks**

To decipher Tamil script, a new artificial network method was presented by P.Banumathi et al., The proposed method involves transcribing handwritten Tamil into printed Tamil. The process was carried out using the Kohonen SOM approach. The five individuals scanned and transformed to a matrix of matlab vectors used to train the model here form the dataset used. While running the model, it is accurate to within 0.2%. The Tamil character recognition work was done by R.Jayakanthan et al., using ResNet. The model is processed in an offline manner using a unique set of architectural components. Methods like deep learning, character recognition, and image processing are employed here. They utilised data amassed by HP India Research Labs. Tamil character recognition using the suggested approach achieves an accuracy of 96%, suggesting it could be used in the development of an end-to-end digitalization of handwritten documentation.

### **Optical Character Recognition**

The SVM was utilised for comparative analysis of two OCR algorithms, one for printed text and one for handwritten text, proposed by a researcher from Iran. In order to train the model, scientists used a picture of separate Tamil characters as their dataset. Therefore, support vector machines are optimal for recognising handwritten text. However, if fusion techniques are applied to printed Tamil documents, the results are optimal. In order to analyse the Tamil text, Rajasekar et al., created an OCR for both alpha numerical and Tamil text. For this purpose of data minimization, they were employing the Fuzzy c-means clustering technique. Finally, the feature extraction, detection, and analysis steps of the recognition process are extracted using an ANN. They have used the Mat2cell dataset, which is used to label upon font sizes, to segment images of words into individual letters. While presenting the novel approach, it achieves high precision. An analysis of the various offline Tamil character for hand written identification methodologies and their corresponding difficulties was conducted by M.Antony Robert Raj et al., OCR, processing, image extraction, and classification are all a part of this procedure. Since this is a comparative study, it includes numerous datasets of varying types. The findings indicate that there is no one-size-fits-all method for accurately identifying all Tamil characters. For the OCR of ancient Tamil inscriptions found in temples, Lalitha Giridhar et al., presented an image recognition-based classification method. An improved OCR approach for Tamil script, used between the 7th and 12th centuries, was proposed. They trained the model with a collection of handwritten texts from antiquity. The success rate for these samples, at 77.7 percent, is satisfactory. Due to the absence of a suitable language parser for ancient Tamil characters, the generated output could not be

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digitally split. A method based on moment recognition was proposed by Dr. Amitabh Wahi and colleagues. He went through a procedure to create effective methods for recognising Indian languages, particularly Tamil, a language used in the southern Indian states of Tamil Nadu, Sri Lanka, Puducherry, and Singapore. The TCR, a neural network, is integrated with current techniques. The dataset collection also contained scanned photos of handwritten letters. For the purpose of categorising Tamil characters, neural classifiers, namely feed forward neural networks, are utilised. Zenike moment computations are notoriously challenging because of the necessity of picture normalisation.

### **VGG16**

Pragathi M A et al., suggest adopting the VGG16 deep learning algorithm for Tamil character identification. We use a convolutional neural network (VGG16) that has been trained on over a million photographs from the image net database, is 16 layers deep, and can distinguish between about a thousand different classes of things. When compared to Google Net's accuracy, it really improves slightly. GoogLeNet is a 22-layer convolutional neural network (CNN) that can be trained using the 1000-object Image net database. This method is widely employed in fields as diverse as object detection, picture recognition, and speech recognition. In transfer learning, the network is first pre-trained on a certain collection of data, and then it is retrained and tested using data specific to the application at hand. The model in transfer learning doesn't have to be trained for a long time.

## **EXISTING SYSTEM**

### **Deep Neural Networks**

Deep neural networks are more complicated neural networks that have more than two hidden layers in addition to input and output layers. To process the supplied data, it resorts to mathematical modelling in more complicated situations. Figure 1 depicts the input layer, which receives data before being processed by the hidden layer, which has N hidden layers deep before being processed by the extraction feature, and finally, the output layer, which receives data before being combined with the other output layers to make a single output.

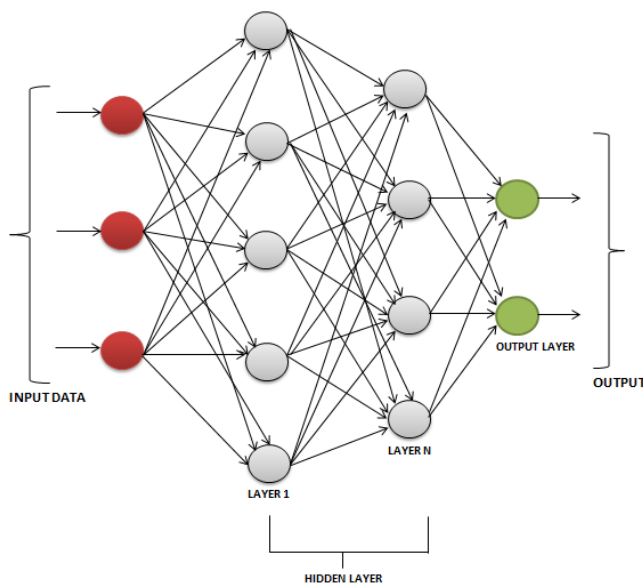
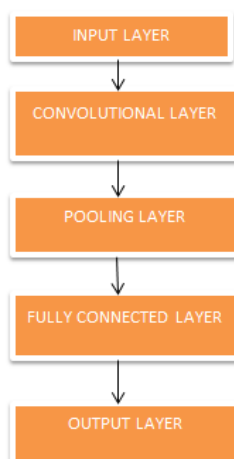


Figure 1: Deep neural network architecture

**Convolutional neural networks**

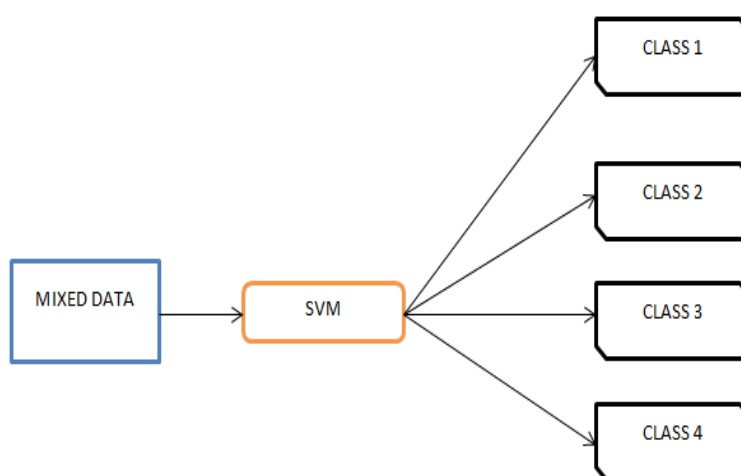
CNNs are a type of deep neural network that has found widespread use in areas such as image identification, image segmentation, natural language processing, and video summarization. Max-pooling, fully connected, and filter and stride layers make up CNN's three total convolutional layers; these are used to extract features from the input data. It's more accurate than competing methods and can work with a wider range of data sets, making it ideal for usage in CNN. Figure 2 depicts the construction of a CNN using a fully linked layer, wherein the input layer receives the images or data and sends them on to the convolution layer, which was produced using a filter and stride. In order to extract features from images, a matrix of filters is employed, with the filter flow being controlled by strides. After combining the weight and activation function of all preceding layers in a "fully connected" layer, the "Max-pooling" layer selects the highest valued number in the matrix to minimise the data dimension. Compared to alternative implementations, CNN's end output would still yield a high degree of accuracy.



*Figure 2: CNN architecture*

### Support Vector Machine

SVM is a supervised machine learning technique that may be used for both classification and regression problems with a focus on individual observations. Common applications of SVM include document classification, picture classification, and difficult regression issues. The SVM machine receives input from the vector machine, which consists of a mixed set of data belonging to multiple classes, and generates a line or hyper plane to partition the data into those classes. The operation of the SVM is depicted in Figure 3. In an n-dimensional Euclidean space, a hyper plane is a flat, n-minus-one-dimensional subset of space that cuts the space in half along a dividing line. It is most often applied to classificatory issues.

*Figure 3: SVM model*

### Artificial neural networks

ANN is a decision-making technology that mimics the human brain and nervous system. It requires careful deliberation and decision-making on the part of the designer, as well as analysis of the outcome and close attention to the memory requirements of the ANN in question. This reduces the number of concepts collected in a manner similar to the biological neural network. In ANN, neurons provide the same crucial role. It was first used in ANN, which is based on a model of the human brain's decision-making processes. ANN is depicted as a multi-layered perceptron with connections between all levels in Figure 4. A single input layer, multiple intermediate layers, and a single output layer make up the architecture. Every ANN node has been linked to every other node in the following layer, allowing us to add as many hidden layers as necessary.



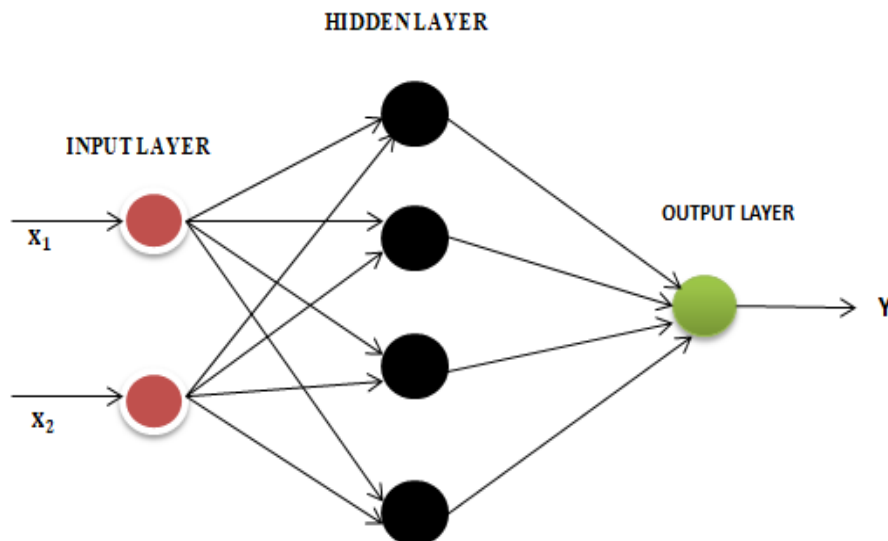


Figure 4: ANN architecture

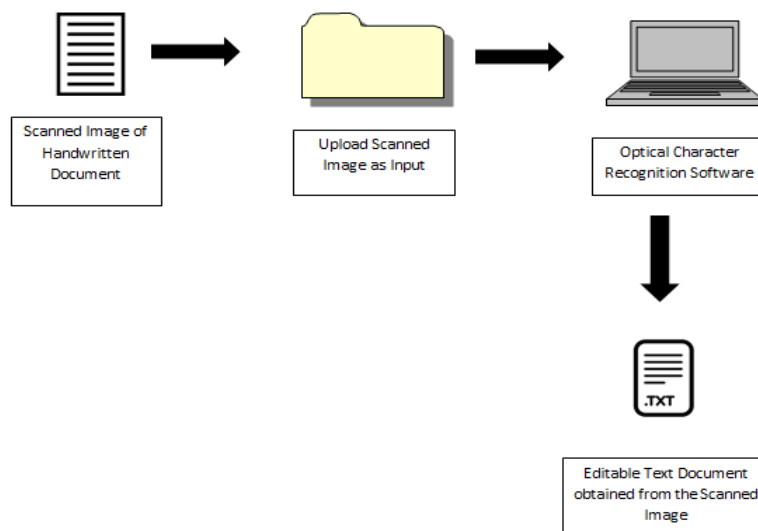
### Optical Character Recognition

OCR is a technology used to convert text from images such as scanned documents, invoices, and paper documents into a more editable format. It's a process whereby an electronic version of a scanned document's text is created. The majority of the time, this type of file is utilised to extract the text from a picture. Most popular application areas include speech recognition, machine translation, and cognitive computing. Figure 5 demonstrates how optical character recognition (OCR) works, demonstrating its ability to recognise in several languages the input data that is fed into the software in the form of an image. After the process is complete, it is fed into an optical character recognition (OCR) programme where the text is extracted from the input and an editable text is returned. In order to use OCR, one must first perform the steps of pre-processing, text identification, and problem recognition.

### VGG16

In 2014, a tournament was won using VGG16, a convolutional architecture of the neural net. The design is reportedly one of the most comprehensive blueprints ever created. The model achieves a high rate of accuracy in the 2014 ILSVRC competition, where it performs quite well. The model's architecture makes it slow, but it features a neat and deep layer of secret layers that pool together at great depth. As the size of a dataset grows, so will the complexity of processing it in terms of both space and time. If the proposed approach differs from CNN only in the need for a very deep convolutional layer to measure, and in being better suited for GPU systems, then the underlying theory is identical. An illustration of the VGG16 model is shown in Figure 6.





*Figure 5: OCR Working*

### **PROPOSED SYSTEM**

The proposed plan involves collecting all of the potential approaches by conducting a large-scale paper survey to merge with text Classification. According to the results of the study, CNN and VGG16 are the two most popular categorization models. Considering that VGG16 was a very large deep neural network, we opted for CNN since it creates and compiles extremely well for text classifications and because it can preserve numerous hidden layers to achieve a good accuracy rate. HP Labs India provided the dataset used in the system, which included over 50,000 photographs of individual Tamil letters. All photographs were resized to 256x256, and the application required that RGB images not be grayscale before being used.

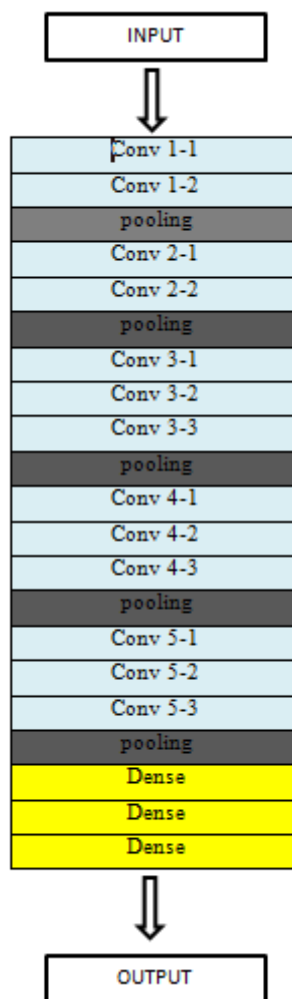


Figure 6: VGG16 model

Each image in the collection is assigned a sequentially increasing number so that it may be easily located in a matrix array. After the model is constructed and the findings are recorded, the input photos are sent for further analysis. CNN performs admirably in these circumstances, although more feature extraction strategies for text categorization using deep learning have been discovered. The proposed approach is aimed for text classification as an alternate use case for the analysis of Auto-encoders, RNN, and GAN. In the past method, the text categorization would not be precise if given noisy data, but the noisy data would show up multiple times. In order to overcome this, auto-encoders are employed to compute the output while simultaneously reducing data noise. The same RNN and GAN can produce results on par with CNN.

### EXPERIMENTAL SETUP & RESULT ANALYSIS

Character recognition in Tamil is accomplished with the help of the HP Labs India dataset. Different districts of school pupils, college students, and working people in Tamilnadu are included in the dataset to provide a wide range of handwriting inputs for training the model on a tablet. All the images in the collection are of individual, hand-written Tamil letters. Photographs

of all the Tamil letters, including a larger number of photographs of individual letters, are shown in Figure 7. With about 170 people profiled, each book features nearly a thousand photographs of singular letters. The Anaconda Navigator was used extensively to test the proposed method before to implementing it. There are many character recognition packages, each of which is typically constructed in its own specialised environment. Python is the programming language used to create the code. To execute the kernel code, a Jupyter notebook is utilised. Table 1 shows a comparison of the accuracy levels of CNN and VGG16 models using the same dataset and the same threshold value of 0.5. Because CNN is more suited for working with the GPU in the system, it achieves better results than VGG16. It doesn't work well with the CPU architecture. The model has difficulty enforcing the required number of epochs in order to offer the accuracy that requires more time than CNN. CNN is effective on home computers and is more accurate than VGG16. The proposed system incorporates CNN and VGG16 to achieve a high degree of performance, however researchers have identified a crucial area in which VGG16's extremely deep neural network outperforms CNN with respect to accuracy. In comparison to the 20+ epochs required by CNN, VGG16 only runs for 1 epoch despite its temporal complexity and low accuracy. Figure 8 shows the CNN and VGG16 graphs for over 20 epochs and a single epoch of VGG16.

Table 1: Performed model Comparison Table

Performed Model	Train Accuracy	Test Accuracy
CNN	96%	87%
VGG16	65%	52%



Figure 7: HP Labs India Dataset

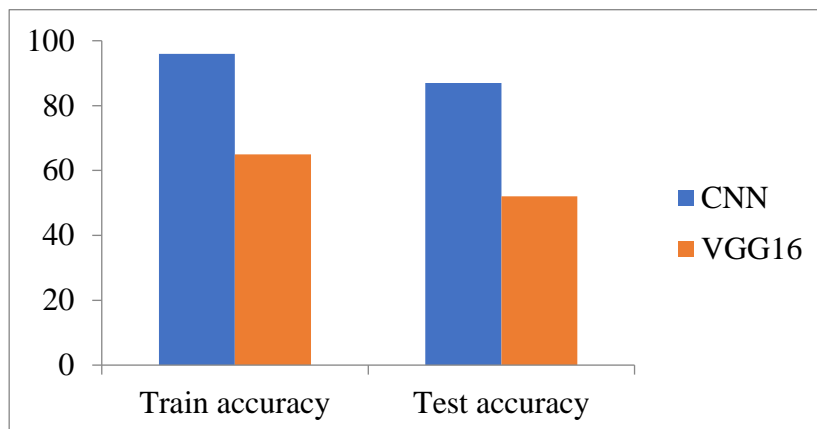


Figure 8: Model Comparison graph

## CONCLUSION

The work that is being proposed makes use of the deep learning ideas to construct the model with CNN and VGG16, and they arrive at the conclusion that CNN works better than VGG16. This is due to the fact that VGG16 is a very complex model that needs a significant amount of time to process for low epoch levels, which makes it less than ideal for running the model on our own personal computers. As a consequence of this, it would be more advantageous to employ the CNN model to develop character recognition that extracts positive qualities. The findings of the character analysis indicate that the number of hidden nodes contributes to an increase in both the number of epochs required to identify the handwritten character and the total number of hidden nodes. The methods described in this article for recognizing handwritten characters in Tamil can be adapted to recognize handwritten characters in other Indian scripts by supplementing them with additional pre-processing steps like line segmentation and character segmentation.

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## WORK LIFE BALANCE AN ORGANIZATIONAL COMMITMENT AMONG IT EMPLOYEES

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### ABSTRACT

This study explores the concept of work-life balance, focusing on setting priorities for work and personal life and measuring work-life balance using factors such as time balance. Benefits for employers who support work-life balance are discussed, including cost savings, reduced absenteeism, and a more loyal and productive workforce. The study also delves into the challenges of achieving work-life balance in the fast-paced and demanding IT sector, where long working hours and constant technological changes can lead to stress and burnout. In addition, the study examines organizational commitment in the information technology sector and its importance to employee retention and organizational performance. Factors affecting organizational commitment, such as job satisfaction, perceived organizational support, and leadership style, are explored. The relationship between work-life balance and organizational commitment is highlighted, with the understanding that achieving work-life balance

### INTRODUCTION

Work–life balance is a broad concept including proper prioritizing between “**work**” (career and ambition) on one hand and “**life**” (Health, pleasure, leisure, family and spiritual development) on the other. Work life balance is measured mainly by using three factors: Time balance, which concerns the amount of time given to work and non-work roles. "Employers who are committed to providing environments that support work- life balance for their employees can save on costs, experience fewer cases of absenteeism, and enjoy a more loyal and productive workforce," said Chancey. Employers that offer options as tele commuting or flexible workschedules can help employees have a better work-life balance.

Defining work-life balance involves looking at how working people manage time spent at and outside of work. Time outside of work may include managing relationships, family responsibilities, and other outside interests and hobbies. The methods an individual uses to juggle all their work and life demands constitute their work-life balance.

### ORGANIZATIONAL COMMITMENT

Organizational commitment refers to the degree to which an employee identifies with and is dedicated to the goals and values of their organization. It is an important concept in the field of organizational behavior and has been extensively studied in various industries, including

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the information technology (IT) sector. In the IT sector, where competition is fierce and turnover rates are high, organizational commitment plays a crucial role in employee retention, job satisfaction, and overall organizational performance.

The IT sector is a rapidly growing and evolving industry, characterized by constant change and innovation. As such, it requires a highly skilled workforce that is adaptable, flexible, and committed to staying current with the latest technologies and trends. Organizational commitment is particularly important in the IT sector because of the high demand for specialized skills and the competitive nature of the industry.

Organizational commitment in the IT sector can be influenced by a variety of factors, including job satisfaction, perceived organizational support, and leadership style. Job satisfaction is a key determinant of organizational commitment and refers to the extent to which employees are satisfied with their job and their work environment. A positive work environment, opportunities for growth and development, and a sense of autonomy and control can all contribute to job satisfaction and, in turn, organizational commitment.

Organizational commitment, on the other hand, refers to the degree to which employees identify with and are dedicated to the goals and values of their organization. Organizational commitment involves a sense of loyalty and dedication to the organization and a desire to contribute to its success. It can be influenced by a variety of factors, such as job satisfaction, perceived organizational support, and leadership style.

While work-life balance and organizational commitment are distinct concepts, they are not mutually exclusive. In fact, achieving work-life balance can contribute to organizational commitment by reducing employee stress and increasing job satisfaction. Conversely, high levels of organizational commitment can lead to a greater willingness to work longer hours or take on additional responsibilities, potentially impacting work-life balance.

In the IT sector, achieving work-life balance can be particularly challenging due to the fast-paced and demanding nature of the industry. IT professionals are often required to work long hours, meet tight deadlines, and stay up-to-date with rapidly evolving technologies. This can result in high levels of stress and burnout, negatively impacting both employee well-being and organizational performance.

Organizations can support work-life balance by implementing policies and practices that promote flexibility and work-life integration. This can include offering flexible work arrangements, providing access to childcare or eldercare support, and promoting work-life balance through organizational culture and leadership.

Organizational commitment in the IT sector is important for employee retention and

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organizational performance. Highly committed employees are more likely to stay with their organization, work harder, and contribute to its success. In the IT sector, where skilled employees are in high demand, organizational commitment can be a key factor in attracting and retaining top talent.

Factors that influence organizational commitment in the IT sector include job satisfaction, perceived organizational support, and leadership style. Leaders who are able to inspire their employees and create a sense of shared purpose and meaning are more likely to foster a strong sense of commitment among their employees.

Organizational commitment, on the other hand, refers to the degree to which employees identify with and are dedicated to the goals and values of their organization. Organizational commitment involves a sense of loyalty and dedication to the organization and a desire to contribute to its success. It can be influenced by a variety of factors, such as job satisfaction, perceived organizational support, and leadership style.

In the IT sector, achieving work-life balance can be particularly challenging due to the fast-paced and demanding nature of the industry. IT professionals are often required to work long hours, meet tight deadlines, and stay up-to-date with rapidly evolving technologies. The IT sector is a rapidly growing and evolving industry, characterized by constant change and innovation. As such, it requires a highly skilled workforce that is adaptable, flexible, and committed to staying current with the latest technologies and trends. Organizational commitment is particularly important in the IT sector because of the high demand for specialized skills and the competitive nature of the industry.

### **OBJECTIVES OF STUDY**

- To study the impact of work life balance on the employee performance.
- To find out the factors influencing work life balance of employees.
- To suggest the way to improve the work life balance of IT sector employees.

### **REVIEW OF LITERATURE**

#### **Work Life Balance Studies/ Work Family Conflict**

Different examiners like Gutek et al. (1991), Frome et al. (1992a), Williams and Alleger (1994), Eagle et al. (1997), Frome et al. (1997), Hammer et al. (1997), Hsieh et al. (2005), Wesley and Muthusamy (2005), Kinanes and Mauna (2007) and Ajodhya's and Rama doss (2010) have listening cautiously on assess job family struggle/ job and personal relations balance in the midst of delegates in an arrangement of setting and to saw the strategy for drop over. An intentionally picked instance of advisors and a volunteer case of boss are the two separate instances of working masses with families which lead by Gutek et al. (1991). Result

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shows that the two sorts of apparent work family distinction (family intrusion with work and work barging in with family) were obviously detachable and likewise self-managing of one another. With family individuals' obvious less relations meddling with work than work encroaching.

In any case, experienced an integrative propagation and at what time Frome et al. (1997) urbanized of workfamily periphery by a case of three hundred and seventy-two working grownups who are hitched just as gatekeepers, the suitable reaction reinforces the not prompt shared association among relations of job is abnormality. Inconsistency has wandering force on work to family by founding family to work struggle by methods for work suffering and work excess.

Work to family inconsistency had not quick mishap on family to work battle by methods for more important than before parental excess. In this model Rajadhyaksha and Rama doss (2010) experienced that impersonation given by Frome et al. (1997) on an instance of four hundred and five women in nation and develop Indian information reasonably maintained inside and cross zone relationship guess.

Hammer et al. (1997) made information from three hundred and ninety-nine twofold specialist couples anddevelop that work family contrast had solid meet resources together folks and females, delegate that separateheight of job family logical inconsistency has a huge forecaster of the accessory's period of job family inconsistency. In a learn of discretionarily drawn instance of six hundred and thirty- one working adults (twohundred and seventy-eight men and three hundred and fifty- three women) in like manner set up that work to relations contrast is extra inescapable than relations to work difficulty, suggestive of relationship limits are holeyer to work requests than work breaking points to relations strain Frome et al. (1992a). In a change of forty one full time operational watchmen (thirteen men and twenty-eight women) Williams and Alleger (1994) in like manner develop that work interferes with relations extra than family intrude with work.

### **Organizations' Strategies for Work Living Balance**

Affiliations take on framework, for instance, 'parcel' and 'mix' as answer to non-work. Kirchheimer (1995)saw 3 sorts of managerial responses to non-work (division, development, reverence) and used the information produced using 224 bosses, excited in complex territories, to charge the adequacy of these various levelled responses. "Segment" was the place managers was disturbed dominatingly together workerdelightful their work obligations, and saw pros' non job live as simply the stress of masters themselves. By virtue of "extension" answer, supervisors treated job and non-fill in as associated universes that distorted one a

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substitute, then acted to lessen the opening among their attempting to enable pros to direct their intricate space. "Respect" suggested the manager see and worth the non-work duty of experts, and enrich to hold up. The ampleness of these reactions was overviewed in regards to their ability to diminish the negative flood from jobless, then to update together legitimate obligation and the good side of flood. Blend and appreciate reactions revealed positive associations with definitive obligation, however segment reaction showed a false relationship. It was worried the executive in as long as measures for authorities to complete non-work commitments ourselves showed best and starting as the kind-hearted which improved suppleness of the job-jobless limit.

### **Impact of Work Life Imbalance**

Chan Hak Fun (2007) "Work- life balance seems to be a significant part of CSR nowadays. Good employers want to be familiar with their compulsion so that they can make sure workers were didn't work so that firm get injure the life exterior of job, guide to bad health. Growing levels of pressure can fast guide to slow down worker morale, poor output and declining job acceptable. Many workers were showing important to harsh stress over task and work-time pressure" Richard Welford (2008) "Work-life balance is a necessary fraction of CSR. Corporations are more and more are familiar with that an insufficient work-life balance can contain harmful impacts on employee's presentation, approval and preservation. When manager target high-quality work-life balance, they be able to see that plummeting stress and aggravation resulting from deprived work-life balance can be helpful to equally parties."

Aditya (2005) "At shoppers stop several women were leaving during maternity since most of the jobs were in customer care, where one had to be on the shop floor all day. Even after their sabbatical was over, they preferred to stay at home since they felt 'cut-off' from the company for too long." Jennifer Smith, Dianne Gardner (2007) "Conflict flanked by work and home life has been connected to job displeasure and income more and more organizations are by means of WLB proposal to employ and keep hold of the key employees in the organizations" Nancy R. Lockwood (2003) "Work/life proposal generate optimistic manager branding, encourage life form a company of option, foster managerial nationality, and hold up variety initiative." David, Robbins (2006) "CEO of Baxter International, Producer of medical products Mr. Harry Kraemer identifies benefits the company has received after implementing work life balancing initiatives in the company. He specifies the organization has hit income focuses on each quarter, about multiplied their benefit objective, with incomes and benefits ascending at twofold digit rates, developed to in excess of 48000 representatives and effectively obtained five noteworthy organizations in a range of 16 months."

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## STATEMENT OF THE PROBLEM

Despite the growing recognition of the importance of work-life balance and its potential impact on employee well-being, productivity, and organizational outcomes, there is a limited understanding of how work-life balance practices affect organizational commitment among employees in the IT sector. Specifically, there is a lack of empirical research exploring the relationship between work-life balance and organizational commitment, and the mechanisms through which this relationship operates. This knowledge gap is particularly relevant in the context of the IT sector, which is characterized by high levels of workload, stress, and burnout, and where work-life balance practices may play a critical role in mitigating these negative outcomes and enhancing employee commitment to the organization. Therefore, this study aims to investigate the relationship between work-life balance and organizational commitment among IT employees, and to explore the underlying mechanisms and boundary conditions of this relationship. Diversity and work life initiatives can be found at the core of the new social contract being negotiated between employers and employees (E.g., The degree of commitment energy expected by employers versus the flexibility required by employees). The expertise of both diversity management and work/life professionals will be critical to find win-win solutions.

## RESEARCH METHODOLOGY

It is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. It is a way of explaining how a researcher intends to carry out their research. It's a logical, systematic plan to resolve a research problem. A methodology details a researcher's approach to the research to ensure reliable, valid results that address their aims and objectives. Methodology is the study of research methods, (or) more formally "a contextual framework for research, a coherent and logic scheme based on views, beliefs, and values that guides the choices researchers.

### Types of Research Design

- Descriptive Research Design
- Experimental Research Design
- Explanatory Research Design
- Exploratory Research Design

### Collection of Data

#### Primary Data

Primary data collection methods are different ways in which primary data can be collected. It explains the tools used in the collecting primary data, sum of which are highlighted below:

- 
- ❖ Interviews
  - ❖ Survey & Questionnaires
  - ❖ Observation
  - ❖ Focus groups
  - ❖ Experiments

### **Secondary Data**

Secondary data is the data that has already been collected through primary sources and made readily available for researchers to use for their own research. It is a type of data that has already been collected in the past.

- Books
- Published source
- Journal

### **Population**

Population of the study consists of IT Sector employees.

### **Sample Size**

The sample size of the study is 100 numbers. A structured questionnaire with 20 questions was distributed and the responses are noted for analysis.

### **Sampling Technique**

The study comes under non-probability convenient sampling. This sampling allows the researcher to carry out his research based on his convenience and respondents' availability of constraints. This research sampling studies every respondent's response according to time, place, and situation.

### **Tools of Analysis**

The following tests were applied to analyze the data

- Percentage Analysis
- ANOVA (ANALYSIS OF VARIANCE)
- Chi- Square test
- Independent Sample T- test

### **HYPOTHESIS FOR THE STUDY**

#### **Chi Square**

Ho - There is no association among the gender of the respondents with respect to organization taking initiatives to manage their work life balance of its employees.

Ha - There is an association among the gender of the respondents with respect to organization taking initiatives to manage their work life balance of its employees.

#### **Anova (Analysis Of Variance)**

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Ho - There is no difference between mean of salary and the respondents who are able to balance their work life.

Ha - There is a difference between mean of salary and the respondents who are able to balance their work life

**Independent Sample T Test**

Ho - There is no difference between the gender of the respondents and the personal event missed by the respondents.

Ha - There is a difference between the gender of the respondents and the personal event missed by the respondents.

**Table 4.7.1 CHI-SQUARE:**

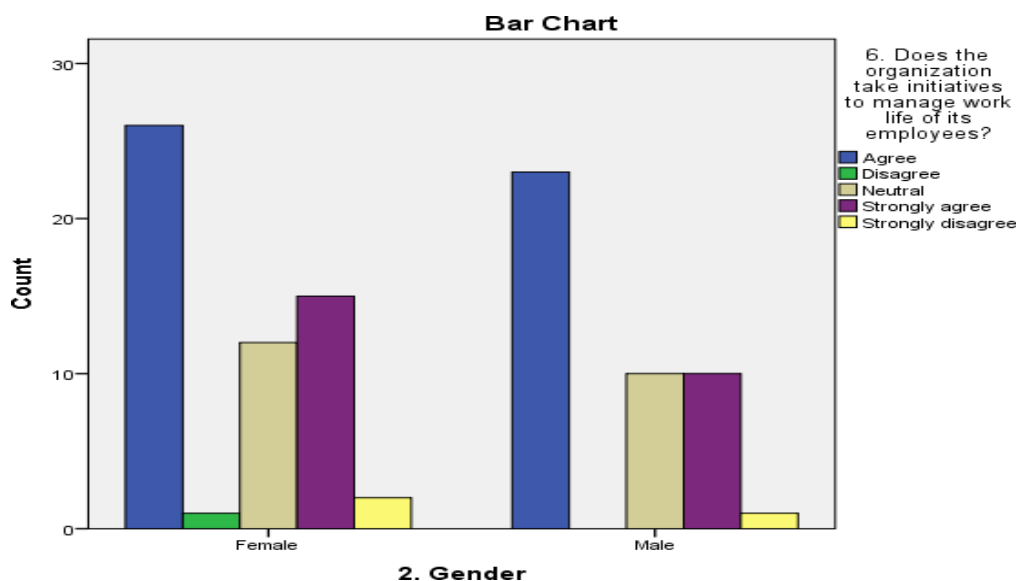
**Table Showing Gender and Organization Takes Initiatives: For Their Employees:**

**Chi-Square Test**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.277a	4	.865
Likelihood Ratio	1.655	4	.799
N of Valid Cases	100		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .44.

**Table 4.7.2. ANOVA**



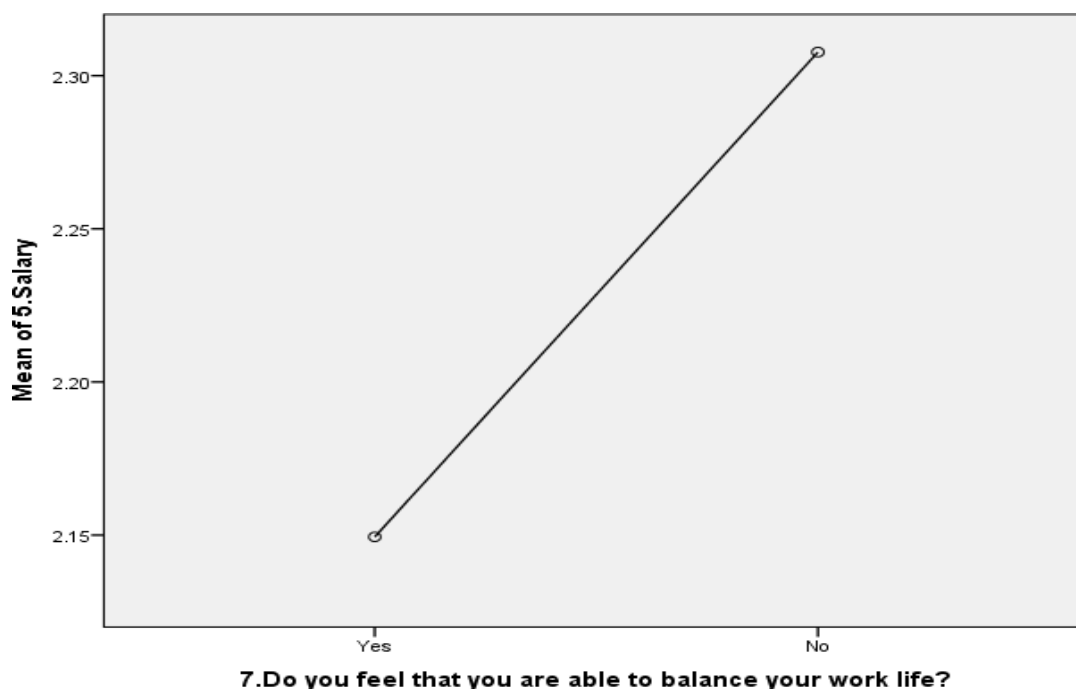


**Table Showing Difference between Salary and Those Them Able To Balance Their Work Life**

**ANOVA**

5. Salary

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.283	1	.283	.169	.681
Within Groups	163.827	98	1.672		
Total	164.110	99			



**Table 4.7.3. INDEPENDENT T-TEST:**

**Group Statistics**

	2. Gender	N	Mean	Std. Deviation	Std. Error Mean
9. Have you missed a personal event because of work?	Male	45	1.22	.420	.063
	Female	55	1.27	.449	.061

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
9. Have You missed a personal event because of work? Equal variances are Assumed	1.356	.247	-.575	98	.566	-.051	.088	-.225	.124
Equal variances are not assumed			-.579	96.212	.564	-.051	.087	-.224	.123

**FINDINGS**

All the employees working in the organization between the age group of 30. In the organization 84% of employees are married. Most of the employees in organization are more than 5 years' experience. 40% of employees are 10 to 12 hours working in organization and 20% of the employees are 8 to 10 hours working in organization. 40 % of the employees got a good working condition. In the organization, 40% of respondents treated with respect of superior in work place. 40% of respondents have good step at night and 10% respondents won't has step at night. 20% of employees are not satisfied go for family trip during vocation once in a year. 40% of employees have family-friendly policies in the organization. In the organization, 40% employees are not satisfied work life policies make their job easier. 20% of employees are superior give more

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guidelines to perform their job. 10% of the employee's don'ts superior give guidelines to perform their job. In the organization, 40% of employees have good relations among the employees. 10% of employees aren't encourage to take own decision in the work place. 40% of employees are feel more respect because of their responsibility in job.

### **SUGGESTION**

To promote work-life balance and enhance organizational commitment, it is important for organizations to take a proactive approach by offering flexible work arrangements, employee support programs, and promoting a positive organizational culture. Leaders can receive training to support work-life balance among employees and encourage open communication to ensure that work-life balance needs are being met. Additionally, employees can take steps to manage their own work-life balance by practicing self-care activities and setting boundaries between work and personal life. By implementing these suggestions, organizations and employees can work together to create a supportive work environment that values work-life balance and enhances employee commitment to the organization. On The basis of the results found from the survey taken on WLB leads to some of the following suggestions. These suggestions are given with account of the improving the standard of the company. Company needs to create counseling services in their respective departments by fulltime counselors who can help employees in balancing their mental and physical rhythm. Appointing Part time work arrangements need to be promoted in the company. It is advised to employees that careful planning and personal effort is important for Balance in work and personal life. The company has to improve the work force of the industry with almost all the employees having skills, knowledge and attitude. The company has to increase the income level of the employees because they often stressed due to their low income. The number of experienced workers increased, then the efficiency of the production will increase with less material wastage, less material resources etc.,

### **RECOMMENDATIONS**

**Promote a supportive work environment:** Organizations should foster a positive and supportive work environment that values work-life balance and employee well-being. This can be achieved by offering flexible work arrangements, providing employee support programs, and promoting a positive organizational culture.

**Train leaders on work-life balance:** Leaders should receive training on how to support work-life balance among employees and create a supportive work environment. This can help leaders to better understand and meet the needs of their employees and enhance employee trust and commitment. **Encourage open communication:** Organizations should encourage open communication between employees and managers to ensure that work-life balance needs are

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being met. This can help employees to feel valued and supported, which may in turn enhance organizational commitment.

**Implement work-life balance policies:** Organizations should implement work-life balance policies that align with employee needs and preferences. This can include policies such as flexible work arrangements, telecommuting, and job sharing.

**Promote employee self-care:** Employees should be encouraged to prioritize self-care activities such as exercise, meditation, and hobbies outside of work. By taking care of their own well-being, employees are more likely to be engaged and committed to their work.

**Conduct regular employee surveys:** Organizations should conduct regular surveys to assess employee satisfaction and well-being, and to identify areas for improvement related to work-life balance and organizational commitment. **Provide recognition and rewards:** Organizations should recognize and reward employees who demonstrate a commitment to the organization and who promote work-life balance. This can include bonuses, promotions, and other forms of recognition that demonstrate the organization's commitment to its employees.

By implementing these recommendations, organizations can promote work-life balance and enhance organizational commitment among IT employees. This can lead to improved employee well-being, engagement, and productivity, and ultimately contribute to the success of the organization.

## CONCLUSION

In conclusion, work-life balance and organizational commitment are two critical factors that are closely interrelated and can significantly impact employee well-being, job satisfaction, and organizational outcomes. In the context of the IT sector, where employees often face high levels of workload, stress, and burnout, work-life balance practices can play a crucial role in mitigating these negative outcomes and enhancing employee commitment to the organization. The literature review suggests that work-life balance practices such as flexible work arrangements, employee support programs, and a positive organizational culture can positively influence employee well-being and organizational commitment.

Leaders can also play a critical role in promoting work-life balance by receiving training and encouraging open communication with employees to ensure that their needs are being met. However, despite the growing recognition of the importance of work-life balance and organizational commitment, there is still a limited understanding of how these factors operate and interact with each other in the context of the IT sector.

More empirical research is needed to explore the underlying mechanisms and boundary conditions of this relationship. Overall, the promotion of work-life balance and organizational

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commitment should be a priority for organizations, particularly in the IT sector, where employee well-being and engagement are critical for organizational success.

By implementing the suggested strategies, organizations and employees can work together to create a supportive work environment that values work-life balance and enhances employee commitment to the organization. The family and work life are both important to employees in any sector and if these two are not maintained properly it creates stress and strain and results into various diseases.

This study is found important because it tries to know how the work life and family life interface results into stress. Achieving a good balance between work and family commitments is a growing concern for contemporary employees and organizations. There is now mounting evidence linking work-life imbalance to reduced health and wellbeing among individuals and families.

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## A STUDY ON HEALTH INSURANCE POLICY AWARENESS AMONG THE RURAL PEOPLE IN DHARMAPURI DISTRICT

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### ABSTRACT

In India, even though improvements in access to health care, social inequality are gross in both rural and urban areas. A lot of middle and lower socio economic class families are compressed under amount overdue at the time of hospitalization due to lack of health insurance. Health financing is a significant part of broader efforts to ensure social protection in health. Although “health insurance” is still an unknown word for the majority rural people. The study objective to assess the awareness about Health Insurance in rural areas and to explain the socio demographic characteristic of respondents. They have a look at changed into carried out within the Dharmapuri district. A sample size of 110 was selected using the convenience sampling procedure. Conclude the awareness concerning health insurance in rural population is very low. There is vital need to educate the rural population about the importance of health insurance

**Key words** rural area, awareness, socio-economic, importance.

### INTRODUCTION

Health insurance is a tool where ‘an individual or group purchase health care treatment in advance by paying a fee called premium. In other words, it's a tool which helps to defer, delay, reduce or in sum avoid payment for health care incur by individuals and household. Health insurance is rapid rising as an important device to finance health care needs of the people. The need for an insurance organization that works on the essential principle of pooling of risks of unforeseen costs of persons lessening ill and needing hospitalization by Charging top class from a much wider population base of the similar community.

For most people live in developing countries and particularly in rural areas “health insurance” is still an indefinite word. It is usually unspecified that people cannot afford such type of social safety (except the upper class). For most people live in poor developing countries illness still represent an enduring threat to their income earning ability. Beside the direct costs for treatment and drugs, not direct costs for the lost labour force of the ill and the occupy person have to be shoulder by the family.

The rural population faces the same dangers because the urban populace which includes illness, harm, coincidence and loss of life. The rural population is more vulnerable to such risks because

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of their social and economic situation. There is a feel need to provide financial protection to rural families for the dealing of major ailments, requiring hospitalization and surgery. Health insurance could be a way of removing the financial barrier and improving convenience to eminence medical care by the poor and also an efficient social safety instrument. The insurance sector for low-income family in the rural population remainder at a very nascent stage in India.

With this kind of position existing, there has not been much development in the coverage of our rural population within the health insurance system. Whether this is due to lack of awareness on part of the public is to be unwavering. So this study was undertaken with the objectives of to examine the socio- economic and demographic characteristics of the selected sample and to assess the awareness about Health Insurance in rural area.

### **STATEMENT OF THE PROBLEM**

To manage up with the growing healthcare expenses, medical insurance is a good choice. Indians have a few shape of medical health insurance, in most cases inadequate. This low percentage might be due to the lack of expertise approximately medical health insurance. The present study was carried out assess the awareness about health insurance in rural areas and to described the socio-demographic characteristics of respondents.

#### **Scope of the study**

Health insurance is the one which wires human life from the unexpected situation because of their forecast about future from the unforeseen medical expenses through the individual, family floater, predictive health care etc. in these fast changing world, lifestyle changes induce diseases and other constant diseases which plays an essential role in financial losses by health issues, the health insurance is a necessity. The research work was to study the level of awareness of policyholders about health insurance in rural areas and to explain the socio-demographic character of respondents.

#### **Objective of the study**

- To evaluate the awareness approximately medical health insurance in rural regions
- To described the socio-demographic characteristics of respondents.

### **REVIEW OF LITERATURE**

Sini and karpagam (2016) analyzing the awareness of policy holders towards medi claim insurance as it's a need for every person. The study about awareness towards health insurance policies of different companies, factors that influence health insurance premium among the policyholders and customer satisfaction about medical insurance premium. The study sample size is 150 and chosen random basis. Statistical tools is percentage analysis, chi-square and weighted average. Conclude unaware about the aspect and if the company try to give more advertisements

about the product then the level of awareness about the product can be improved destiny period of time and if the agency attempts to reduce the declare span of the respondents.

Arun vijay and krishnaveni (2017), the study aim to find out the awareness level of health insurance among the people in Ernakulam district, their pattern of contribution of health insurance policies and availing health insurance policies in different age groups. The data was collected from 150 people among public. The only way for lessening this gap down is through hopeful the people for purchasing the individual health insurance policies for the self and family. Anandalakshmi and Brindha (2017), scrutinize the awareness of health insurance schemes, factors influence the purchase decision of policyholders in purchasing health insurance policy and level of customer satisfaction towards agent's service of a company. The study's sample size was 100 respondents, and it was done in the city of Coimbatore using a practical random sampling approach. Conclude most of them awake through agents and treatment of the life is the main factor to take insurance policy and most of the respondents are satisfied with their agents service. The existing health insurance programmes needed important reforms to make them more efficient and socially useful.

### RESEARCH METHODOLOGY

The study is based on the descriptive research which include primary as well as secondary data. Primary data was collected from public, men and women who feel right to different age groups, working at different sectors and different culture. Secondary data was collected from different journals and past studies on health insurance and awareness. The Dharmapuri district served as the study's location. A sample size of 110 was selected using the convenience sampling procedure.

### DATA ANALYSIS AND INTERPRETATION

#### Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	54	49.1	49.1	49.1
Valid Female	56	50.9	50.9	100.0
Total	110	100.0	100.0	

The above table shows that gender wise classification the female respondents are 50.9 percent and male respondent 49.1 percent's



**Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 30	93	84.5	84.5	84.5
30-40	9	8.2	8.2	92.7
Valid 40-50	4	3.6	3.6	96.4
Above 50	4	3.6	3.6	100.0
Total	110	100.0	100.0	

84.5% of respondents were under the age of 30, making up the majority of the sample.

**Education**

	Frequency	Percent	Valid Percent	Cumulative Percent
school level	2	1.8	1.8	1.8
Graduate	18	16.4	16.4	18.2
Valid post graduate	65	59.1	59.1	77.3
Others	25	22.7	22.7	100.0
Total	110	100.0	100.0	

The education status of the respondent 59.1 percent having post graduate and 18.2 percent are having the graduate.

**Occupation**

	Frequency	Percent	Valid Percent	Cumulative Percent
government employee	15	13.6	13.6	13.6
private employee	20	18.2	18.2	31.8
Valid Professional	12	10.9	10.9	42.7
Business	9	8.2	8.2	50.9
Others	54	49.1	49.1	100.0
Total	110	100.0	100.0	

Among the respondents, 49.1 percent of the population belongs to other source and 18.2 percent respondent our occupation is private employee.

**Marital status**

	Frequency	Percent	Valid Percent	Cumulative Percent
married	25	22.7	22.7	22.7
Valid unmarried	85	77.3	77.3	100.0
Total	110	100.0	100.0	

The above table shows that 77.3 percent of the respondent unmarried and 22.7 percent of the respondent married.

**Family type**

	Frequency	Percent	Valid Percent	Cumulative Percent
joint family	44	40.0	40.0	40.0
Valid nuclear family	66	60.0	60.0	100.0
Total	110	100.0	100.0	

The above table shows that 60 percent of the respondent family type is nuclear family and 40 percent of the respondents' family type is joint family.

**Size of family**

	Frequency	Percent	Valid Percent	Cumulative Percent
1-2	5	4.5	4.5	4.5
2-3	17	15.5	15.5	20.0
Valid 3-4	37	33.6	33.6	53.6
above 4	51	46.4	46.4	100.0
Total	110	100.0	100.0	

The above table shows that 46.4 of the respondent family size is above 4 and 15.5 percent of the respondent family size is 2-3.

**Annual income**

	Frequency	Percent	Valid Percent	Cumulative Percent
up to 3,00,000	100	90.9	90.9	90.9
Valid 3,00,000-5,00,000	10	9.1	9.1	100.0
Total	110	100.0	100.0	

The above table shows that 90.9 percent of the respondent annual income is up to 3,00,000 and 9.1 percent of the respondent annual income is 3,00,000- 5,00,000 lakhs.

#### Residential area

	Frequency	Percent	Valid Percent	Cumulative Percent
Rural	24	21.8	21.8	21.8
Urban	18	16.4	16.4	78.2
Valid semi urban	68	61.8	61.8	100.0
Total	110	100.0	100.0	

The above table shows that 61.8percent of the respondent living in semi urban area and 21.8 percent of the respondent living in rural area.

#### CONCLUSION

Awareness about health insurance is poor; then awareness creation is needed. Education, socio-economic status and occupation were constructive determinants for opting health insurance. Media seem to have played an important role in distribution of information. This calls for effective information, education, and communication tricks which will improve accepting of insurance by the public. There should be implementation of health insurance policies which can benefit rural India.

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## FINTECH AT YOUR FINGER TIP

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### ABSTRACT

Fintech in India, The second most funded startup sector in India by 2022, is a remark for a digital transformation of currency market in India. Establishment and development of fintech sector in India is the need of the era and an emergency call for digital India initiatives, Fintech extends its roots into Digital Payments, Digital Lending, InsurTech and WealthTech and touches the billion population of India.

Digital payments where India witnessing a paradigm shifts from conventional payments to digital payments. Introduction and installation of Unified Payment Interface (UPI) by National Payments Corporation of India (NPCI) is to facilitate inter-bank, peer-to-peer (P2P) and person-to-merchant (P2M) transactions. UPI recorded the highest ever volume of transactions in April 2023 (8.8 Bn), and it is expected to touch 1Bn per day by 2025. However Fintech paves the way to digitalization and removing paper currency from the Indian economy. It is not only a topic to discuss under digitalization but also about dematerialization of currency in India. The Unified Payments Interface (UPI) and its enabled applications are changing the face of currency market by wiping out the use of hard currency from the economy. This article is an attempt to study and analyze the fintech industry in India, its growth and prospect. Financial inclusion to digital payments in India is a worthy story to know.

Financial inclusion refers to the availability and accessibility of financial services and products to all segments of society, especially the marginalized and underprivileged. In India, with its vast population and diverse socio-economic settlements, achieving financial inclusion is a critical aspect of promoting inclusive growth and reducing poverty. This article explores the start, process, actions, and present status of financial inclusion in India.

India's journey towards financial inclusion can be traced back to the nationalization of banks in 1969, which aimed to provide banking services to the unbanked population. Subsequently, the establishment of Regional Rural Banks (RRBs) and the expansion of the banking network through the opening of branches in rural areas contributed to greater financial access. However, significant challenges persisted due to low literacy rates, inadequate infrastructure, and cultural barriers.

In recent years, the Government of India, in collaboration with the Reserve Bank of India (RBI) and other stakeholders, has taken several measures to promote financial inclusion. One of the key initiatives was the introduction of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2014. PMJDY aimed to provide every household with a bank account, access to credit, insurance, and

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pension schemes. It also promoted the use of Aadhaar (unique identification number) and mobile phones for efficient and secure financial transactions.

**Keywords:** *Financial inclusion, Digital payments, Artificial Intelligence, Open Banking, Block Chain, Financial Services, Fintech Revolution, ecosystem, trends, Robo-advisory.*

To enhance financial inclusion, the Indian government and RBI have implemented various policies and measures. Some of them are:

**Digital Payments Revolution:** The demonetization drive in 2016 acted as a catalyst for the adoption of digital payment methods, encouraging the use of mobile wallets, Unified Payments Interface (UPI), and Aadhaar-enabled payment systems. This shift has facilitated easier and faster financial transactions, especially for the unbanked population.

**Financial Literacy Programs:** To bridge the knowledge gap and empower individuals, financial literacy programs have been introduced across the country. These programs educate people about banking services, digital payments, saving habits, and the importance of credit, thus enabling them to make informed financial decisions.

**Microfinance Institutions (MFIs):** MFIs have played a significant role in providing access to credit and financial services to the economically disadvantaged sections of society. By offering small loans, savings facilities, and insurance products, they have empowered individuals, particularly women and rural communities, to start and expand their businesses.

**Banking Correspondents (BCs):** Recognizing the need for physical banking infrastructure in remote areas, the concept of BCs was introduced. BCs act as intermediaries, representing banks and providing basic banking services like account opening, cash deposits, withdrawals, and remittances in areas where brick-and-mortar bank branches are not feasible.

India has made considerable progress in financial inclusion. As of the latest available data, over 430 million bank accounts have been opened under the PMJDY, with significant growth in rural areas. Furthermore, the rise of digital payments, supported by government initiatives like the Bharat Interface for Money (BHIM) and UPI, has revolutionized the way people transact. The use of mobile phones for accessing financial services has become widespread, and financial technology companies (fintechs) have emerged as important players in expanding financial inclusion.

Financial inclusion in India has come a long way, driven by comprehensive policies, technological advancements, and collaborative efforts. However, challenges such as the connectivity, customer awareness, and cybersecurity remain unsettled. It is essential for stakeholders to continue working together to address these challenges and ensure that financial

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inclusion reaches every corner of the country. By doing so, India can unlock the potential of its population, drive economic growth, and build a more inclusive and prosperous society.

In recent years, India has witnessed a significant transformation in its financial system, primarily driven by digital payment systems. Two key initiatives that have played a pivotal role in this revolution are the Bharat Interface for Money (BHIM) and the Unified Payments Interface (UPI). This study explores the impact of BHIM and UPI on financial inclusion in India, highlighting their features, benefits, and contributions to the country's journey towards a cashless economy.

### **The Emergence of BHIM and UPI**

The Bharat Interface for Money (BHIM) was launched in December 2016 as a mobile app, offering a seamless and secure platform for digital payments. It was developed by the National Payments Corporation of India (NPCI) and is based on the Unified Payments Interface (UPI), a real-time payment system introduced by the Reserve Bank of India (RBI) in 2016. UPI enables instant fund transfers between different banks through mobile devices, providing a single interface for various banking services.

BHIM and UPI have revolutionized the way people transact by offering several key features and benefits as:

**Simplicity and Convenience:** BHIM and UPI have simplified the payment process by eliminating the need for bank account details or physical cash. Users can link their bank accounts to the app and initiate transactions with just a few taps on their smartphones. The user-friendly interface and seamless integration with multiple banks have made digital payments accessible to all, including those with limited technological expertise.

**Interoperability:** BHIM and UPI provide interoperability between different banks and payment service providers, allowing users to send and receive money effortlessly across various platforms. This interoperability ensures that users are not restricted to a specific bank or payment app and can choose the service that best suits their needs.

**Instant and 24/7 Transactions:** UPI transactions are processed in real-time, enabling immediate fund transfers between users. Unlike traditional banking methods that often involve delays, BHIM and UPI facilitate instant transactions, providing users with greater control over their finances. Moreover, these services are available 24/7, allowing users to transact at their convenience, even outside of regular banking hours.

**Security and Authentication:** BHIM and UPI employ robust security measures to protect users' financial information. Transactions are authenticated through two-factor authentication, including PINs, biometrics, or other secure methods. Additionally, UPI uses Virtual Payment Addresses (VPAs) instead of sharing sensitive bank account details, further enhancing security.

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**Banking Access for the Unbanked:** BHIM and UPI have allowed individuals without traditional bank accounts to access digital financial services. Through these platforms, users can link their mobile wallets or Jan Dhan accounts to make digital transactions, enabling them to participate in the formal financial system.

**Rural Outreach:** With the penetration of smartphones and internet connectivity, BHIM and UPI have reached rural areas, bridging the urban-rural divide in terms of financial access. Users in remote regions can now transact digitally, eliminating the need to travel long distances to access banking services.

**Micro and Small Business Enablement:** BHIM and UPI have provided a convenient payment mechanism for micro and small businesses. Merchants can accept payments digitally, facilitating ease of doing business and reducing dependency on cash. This has empowered small entrepreneurs, including street vendors and artisans, to grow their businesses and access formal credit opportunities.

**Government Schemes and Subsidies:** BHIM and UPI have facilitated the direct transfer of government subsidies and benefits to individuals' bank accounts. This has streamlined the distribution process, reduced leakages, and ensured timely and transparent disbursement of funds, benefitting the underprivileged and marginalized sections of society.

BHIM and UPI has transformed India's financial ecosystem, driving financial inclusion and paving the way for a digital economy. By offering simplicity, convenience, security, and interoperability, these platforms have enabled millions of individuals, including the unbanked and those in remote areas, to participate in formal financial transactions. Going forward, it is essential to address challenges such as connectivity, awareness, and cybersecurity to ensure that the benefits of BHIM and UPI reach every corner of the country. Through continued innovation, collaboration, and policy support, India can build upon the success of BHIM and UPI to achieve greater financial inclusion and economic empowerment for all its citizens.

The introduction of Aadhaar (unique identification number) and the evolving data privacy framework have provided a robust foundation for fintech companies to leverage user data while ensuring privacy and security. This enables the development of more tailored and personalized financial products and services. Fintech startups are fostering innovation by leveraging emerging technologies such as artificial intelligence, blockchain, and big data analytics. Collaborations between traditional financial institutions and fintech companies are becoming more common, driving synergies and enhancing customer experience.

The fintech revolution in India has reshaped the financial system by offering innovative and accessible solutions to individuals and businesses. The industry's growth has been flourished by

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a supportive regulatory environment within the country and digital adoption. With the increasing focus on financial inclusion, technology-driven innovation, and collaboration, the future of fintech in India appears promising. As the industry continues to evolve, it will play a critical role in transforming the financial system, promoting digitalization, and empowering individuals to make better financial decisions.

Fintech industry has emerged as a powerful industry reshaping the financial services worldwide. In India, the fintech revolution has gained significant momentum in recent years, driven by technological advancements, regulatory support, and a burgeoning digital ecosystem. This article delves into the origins of the fintech revolution in India, its performance thus far, and the present and future outlook for the industry. The roots of India's fintech revolution can be traced back to the early 2000s when internet penetration and digital adoption started to gain attraction. The introduction of mobile wallets and payment gateways laid the foundation for the industry. However, the watershed moment came with the demonetization drive in 2016, which spurred the rapid adoption of digital payment methods. This catalytic event paved the way for fintech startups to flourish, offering innovative solutions in payments, lending, personal finance management, insurance, and more.

The fintech sector in India has witnessed remarkable growth and performance in recent years. Companies like Paytm, PhonePe, and Google Pay have revolutionized the payments landscape, enabling seamless and secure transactions through mobile devices. These platforms have significantly contributed to the shift from cash-based transactions to digital payments and fintech platforms like Faircent, Lendingkart, and Rupifi have facilitated access to credit for individuals and small businesses. Peer to Peer (P2P) lending has provided an alternative to traditional lending channels, leveraging technology to connect borrowers and lenders directly.

Robo-advisory platforms such as Scripbox and Groww have made investing in mutual funds and other financial instruments more accessible and cost-effective. These platforms leverage algorithms and automation to provide personalized investment advice to retail investors. Insurtech startups like Policybazaar and Acko have disrupted the insurance sector by offering online comparison platforms and customized insurance products. These platforms simplify the process of purchasing insurance and provide greater transparency and choice to consumers.

The Indian government and regulators, such as the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI), have introduced progressive policies and frameworks to support fintech growth. Initiatives like the regulatory sandbox and open banking guidelines promote collaboration and experimentation within a regulated environment.



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The fintech industry in India has witnessed remarkable growth in recent years, fueled by technological advancements, a digital-savvy population, and a supportive regulatory environment. This article explores the fintech landscape in India, highlighting its growth, impact on financial services, and contributions to financial inclusion and digital transformation.

The Emergence and Growth of Fintech in India takes place by early fintech initiatives, with the establishment of online payment gateways and mobile wallets in the early 2000s paved the way for digital transactions and laid the groundwork for further innovation. The Indian government's push for digitalization, coupled with regulatory support, has been instrumental in fostering the growth of fintech. Initiatives like Digital India, demonetization, and the introduction of the Unified Payments Interface (UPI) have accelerated the adoption of digital payment methods and created an enabling environment for fintech startups. Fintech startups in India have attracted substantial venture capital investments, indicating the growing confidence and interest in the industry. These investments have fueled innovation, product development, and market expansion.

While we discuss about the impact of fintech on financial services in India, the fintech has revolutionized the payments landscape in India by accelerating the use of mobile wallet platforms like Paytm, PhonePe, and Google Pay and it have made digital transactions timeless and convenient, reducing reliance on hard currency and traditional banking channels. Fintech companies have disrupted traditional lending models, by providing greater access to credit for individuals and small businesses. Peer-to-peer (P2P) lending platforms like Faircent, Lendingkart, and KredX have connected borrowers with lenders, enabling faster loan disbursements and simplified application processes. Robo-advisory platforms have democratized wealth management, making it more accessible to retail investors. Companies like Scripbox, Groww, and Zerodha have leveraged technology to provide low-cost investment options and personalized advice, it empowered individuals to make informed investment decisions.

Also insurtech startups like Policybazaar and Acko have transformed the insurance industry by offering online comparison platforms and customized insurance products. These platforms have simplified the insurance buying process, increased transparency, and expanded insurance coverage.

Although the Indian regulatory framework has been supportive of fintech, there are some challenges remains unattended. Striking a balance between rapid innovation in technology and protection of consumer informations, addressing data privacy concerns, and ensuring cybersecurity are ongoing challenges for the industry. Increasing digital literacy and creating more awareness about fintech services are crucial for widespread adoption. Efforts are needed to

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educate individuals about the benefits, risks, and security measures associated with fintech products and services.

The future of the fintech industry in India looks promising. Emerging technologies such as artificial intelligence, blockchain, and machine learning will continue to flourish the industry. Trends like open banking, data analytics, and personalized financial solutions are expected to gain more attention in recent days. The fintech industry in India has emerged as a catalyst for innovation, financial inclusion, and digital transformation. Through its disruptive solutions, fintech has redefined the way individuals and businesses access and utilize financial services. While the industry has made significant strides, continued collaboration, regulatory support, and efforts to address challenges will be crucial for sustainable growth. With its dynamic ecosystem, India is poised to embrace the evolving fintech landscape, leveraging technology to create a more inclusive and accessible financial ecosystem for all.

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## A STUDY ON HOW SPIRITUALITY AND MEDITATION IS AFFECTING THE EMOTIONAL INTELLIGENCE IN MANAGEMENT STUDENTS

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### ABSTRACT

Emotional intelligence is the base for all the skills either soft or hard, it helps individuals to learn how to use their emotions in a positive and constructive way, this is also a very important soft skill that every employee and employer should have. This study is to understand what is the emotional intelligence in the management students who in future are the key players in the business world. Many philosophers and scholars have defined what Emotional intelligence is and how to measure it, in this study a questionnaire based on five competences of emotional intelligence i.e, Self-Awareness, Self-Management, Motivation, Empathy and Relationship Management given by Daniel Goldman's Emotional Intelligence concepts have been circulated. The studies' main objective is to understand whether spirituality or meditation in an individual's daily life is showing any positive effect on their emotional intelligence for the same the questionnaire has been circulated with an expectation of 125 responses but only 74 responses were received. Regression analysis and ANOVA were performed to check whether there is any significant effect of spirituality and meditation of an individual on his/her emotional intelligence and it has given a positive result. Descriptive Statistics for the various dimensions of emotional intelligence was performed to study whether there is any difference in the emotional intelligence of male and female, surprisingly there is no difference found. Comparison of the average scores of various dimensions with respect the meditator and non-meditator and Comparison of the average scores of various dimensions with respect the spiritual and non-spiritual was performed with t-test although meditation didn't result much significance, there is a high significance for spirituality.

**Key words** *Emotional intelligence, Spirituality, Meditation*

### INTRODUCTION

Emotional intelligence (EI) refers to the ability to identify, understand, and manage one's own emotions as well as the emotions of others. In the context of management education, emotional intelligence plays a vital role in developing well-rounded and effective leaders. While technical skills and knowledge are essential in management, emotional intelligence enables students to navigate complex interpersonal dynamics, foster positive relationships, and make sound

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decisions. This essay discusses the importance of emotional intelligence in management students and its significant impact on their success as future leaders.

### **1. Enhancing Self-Awareness**

Emotional intelligence fosters self-awareness, enabling management students to understand their strengths, weaknesses, and emotional triggers. This self-awareness allows students to regulate their own emotions, respond effectively to stressful situations, and make rational decisions. By recognizing and managing their emotions, students can avoid impulsive behaviour and maintain composure, which is crucial in leadership roles.

### **2. Developing Empathy and Social Skills**

Management is inherently people-oriented, and effective leaders must possess strong interpersonal skills. Emotional intelligence empowers students to develop empathy, the ability to understand and share the feelings of others. By empathizing with colleagues, employees, and stakeholders, management students can build stronger relationships, resolve conflicts, and create a positive work environment. Furthermore, emotional intelligence equips students with the social skills needed to communicate effectively, collaborate, and inspire others, which are essential attributes for successful managers.

### **3. Resilience and Stress Management**

The field of management often involves high-pressure situations, tight deadlines, and demanding responsibilities. Emotional intelligence equips students with resilience and stress management techniques, enabling them to cope with challenges and bounce back from setbacks. Students with high emotional intelligence can maintain their motivation, adapt to change, and lead their teams through difficult times, fostering a culture of resilience within the organization.

### **4. Conflict Resolution and Negotiation**

Effective conflict resolution and negotiation skills are vital for managers to maintain harmony within the workplace and achieve mutually beneficial outcomes. Emotional intelligence equips management students with the ability to understand different perspectives, manage emotions during conflicts, and find collaborative solutions. By practicing empathy, active listening, and effective communication, students can mediate conflicts, build consensus, and facilitate win-win situations, contributing to the overall success of the organization.

### **5. Building and Leading Effective Teams**

The success of any organization depends on the ability to build and lead high-performing teams. Emotional intelligence allows management students to understand the strengths and weaknesses of team members, create a positive team culture, and foster cooperation. By leveraging emotional

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intelligence, students can motivate and inspire team members, resolve conflicts, and facilitate productive collaboration, resulting in increased team cohesion and improved performance.

### **NEED FOR THE STUDY**

Emotional intelligence (EI) is one of the important factors of the future leaders, every individual's emotional intelligence differs from one another, and it must be improved and maintained for a continuous success of an individual. For the same is spiritual time or meditation of an individual showing any effect?

### **REVIEW OF LITERATURE**

#### **Showry**

The study explored various quotients of emotional intelligence like self-awareness, self-management, social awareness and relationship management in significance with managerial excellence. It was found that emotional intelligence ensures managers to make strategic planning, make efficient decision with improved thinking and balanced thoughts, creates self-awareness to work in a team more efficiently, enables to manage their stress and sustain with enthusiasm, resolve conflicts in a more cordial manner, reduce attrition and enhance customer relationship for professional success

#### **Delphine Nelis, Jordi Quoidbach, Moira Mikolajczak, Michel Hansenne**

The Research firstly introduced what Emotional intelligence is with knowledge, ability and traits. The study focus is on what people know about emotions and how to deal with emotion-laden situations. The sample consisted of 37 individuals, 19 in the training group and 18 in the control group. This study investigated, using a controlled experimental design, whether it is possible to increase EI. The training group received a brief empirically derived EI training while control participants continued to live normally. Results showed a significant increase in emotion identification and emotion management abilities in the training group. Follow-up measures after 6 months revealed that these changes were persistent. No significant change was observed in the control group. These findings suggest that EI can be improved and open new treatment avenues.

#### **Zhun Gong, Yuqi Chen and Yayu Wang**

This research initially discussed what is emotional intelligence and how it effects the performance of employees negatively or positively towards the enterprise's performance. The purpose of this paper was to explore the role of psychological capital, which played a mediating role in the relationship between EI and job burnout. This study surveyed 450 employees of various enterprises through questionnaires. The results showed that EI is negatively correlated with job burnout, EI has a significant positive correlation with job performance, EI has a significant positive correlation with psychological capital, psychological capital has a significant negative

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correlation with job burnout, psychological capital has a significant positive correlation with job performance. Finally, it discusses the contribution to the theoretical development and the possible implications for organization by the result

**Seema Sharma**

This research studied the relationship between environmental awareness and emotional intelligence of student teachers and teachers. The sample of the study consisted of 200 student-teachers (100 male and 100 female) and of 100 teachers (50 male and 50 female). The results showed that there was no significant difference between male and female student-teachers and teachers regarding environmental awareness and emotional intelligence. The results also showed that the environmental awareness of male and female student-teachers was also found to be slightly positively but not significantly correlated with emotional intelligence. The environmental awareness of male teachers was found to be moderately, positively and significantly correlated with emotional intelligence. On the other hand, the environmental awareness of female teachers was found to be slightly positively but not significantly correlated with emotional intelligence.

**Ravi Kant**

This research studied the emotional intelligence among the university students to find the difference between EI based on gender, locality, level of course and school of study. This survey-based study used data from 200 students at a Central University. The result indicates that all students at School of Education have emotional Intelligence of high level except in comparison of students at School of Law & Governance. Male and female students are significantly differed from each other on Emotional Intelligence on overall sample. Female students found more Emotional Intelligent with high mean value. UG and PG students of were found not significantly differ from each other on Emotional intelligence. UG students were more emotionally intelligent based on mean value. Residential location does not have any significant role, but rural students were more emotionally intelligent in comparison to their counterpart.

**Fatemeh Nemati Sogolitappeh, Amjad Hedayat, Mehrdad Rezaee Arjmand, Mohamad Khaledian**

The research has investigated the relationship between spiritual intelligence and emotional intelligence in resilience with undergraduate (BA) students. 100 students from different disciplines were selected as sample of the study using random sampling method. In this research, King's Spiritual Intelligence Questionnaire was circulated. Descriptive statistics and inferential statistics were used to analyse the data. The results of this study showed there is a significant positive correlation between spiritual intelligence and emotional intelligence and resilience, and there is a significant positive correlation between emotional intelligence and resilience.

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**Susan Tee Suan Chin, R.N. Anantharaman and David Yoon Kin Tong**

The study firstly discussed the current state of mobile employability and its such state of organizations across the globe, it concluded that both Emotional Intelligence and Spiritual Intelligence touch the nerve of the employees. It makes them to go beyond the normal actions. Emotional intelligence, when applied to the workplace, involves the capacity to effectively perceive, express, understand and manage emotions in a professional and effective manner at work. Spiritual intelligence is the set of abilities that individuals use to apply, manifest and embody spiritual resources, values and qualities in ways that enhances their daily functioning and well-being. With both these intelligences in play, the employee would be an asset to the organization. Both Spiritual Intelligence and Emotional Intelligence complement each other. The working environment has become a main feature in many people's lives especially for those who are working.

**Ilias Kamitsis, Andrew J.P. Francis**

The study discusses the importance of nature and it also discussed about the link between human-nature relationships. The study determined the human extent to which engaging with nature, through both exposure and connectedness, influences psychological health, and the role of spirituality in this relationship. The survey was conducted on a sample of 190 individuals with a mean age of 36.8 years ( $SD = 13.1$  years) completed surveys comprising the Nature Exposure Scale, the Connectedness to Nature Scale, the Mysticism Scale, and the psychological health subscale of the WHOQOL-BREF. As predicted, significant positive associations were observed amongst all variables, supporting previous findings of positive relationships between engagement with nature and wellbeing, and between spirituality and wellbeing.

**P.M. Nimmi, Alka K. Binoy, George Joseph, R. Suma**

The study investigates the possible intervening methods to enhance the wellbeing of students during difficult times. The study proposes spirituality development as means through which psychological resources like perceived employability and psychological capital are developed in an individual. Cross-sectional study was conducted among 212 management students from Kerala, India. Multi-stage random sampling was used to collect data. Structural equation modelling using IBM-AMOS was done to gain insights into the proposed relationships. The results indicated that spirituality had a significant impact on the wellbeing of management students. Both perceived employability and psychological capital mediated the relationship between spirituality and life wellbeing.



**Hari Sharma**

This article describes the process of meditation at a more fundamental level and aims to shed light on the deeper underlying mechanism of the beneficial effects associated with meditation. Research on the effects of meditation is summarized as an exercise that occurs without the mind directing the process. In physical exercise, the mind does not tell the muscles to get stronger; rather, the muscles are strengthened automatically by the exercise process. Likewise, in this exercise of consciousness, that is, meditation, the results are achieved automatically, not by controlling the mind or any other mental manipulation. The process of meditation goes beyond the mind to the deepest level of the inner Self.

**Laurent Valosek, Janice Link, Paul Mills, Arthur Konrad, Maxwell Rainforth, Sanford Nidich, EdD**

This study has been conducted after a Transcendental Meditation program in a workspace and the result showed a significant increase in emotional intelligence total score ( $p < 0.003$ ) and a significant decrease in perceived stress ( $p < 0.02$ ) in TM participants compared with controls. A significant increase in general mood, stress management, adaptability, intrapersonal awareness, and reality testing composite scales for emotional intelligence were observed ( $p < 0.05$ ); a significant increase was not observed in the interpersonal scale. Compliance with meditation practice was high (93%). Because of the sex composition in this study, results are most generalizable to female employees.

**Peerayuth Charoensukmongkola**

This study investigated the benefits of mindfulness meditation practice on self-report emotional intelligence, general self-efficacy, and general perceived stress. The survey data was collected from 317 respondents in Thailand. The results analyzed using the partial least squares regression indicated that mindfulness meditation practice tended to associate positively with emotional intelligence. Practicing mindfulness meditation also negatively relates to general perceived stress directly and indirectly through emotional intelligence. However, the positive association between the meditation and general self-efficacy was only found to be mediated by emotional intelligence.

**Virginia Lemay, John Hoolahan, and Ashley Buchanan.**

This study has evaluated the impact of a six-week yoga and meditation intervention on college students' stress perception, anxiety levels, and mindfulness skills, in the study the College students participated in a six-week pilot program that consisted of a 60-minute vinyasa flow yoga class once weekly, followed by guided meditation delivered by trained faculty members. Students completed pre- and post-intervention questionnaires to evaluate changes in the stress levels, anxiety levels, and mindfulness skills. Students experienced a reduction in stress and anxiety

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levels after completing a six-week yoga and meditation program preceding final examinations. Results suggest that adopting a mindfulness practice for as little as once per week may reduce stress and anxiety in college students.

### T. Ravi Kumar

The study has investigated the relationship among spiritual intelligence, emotional intelligence and psychological resilience of corporate executives in India. The study analysed impact of emotional intelligence and spiritual intelligence on psychological resilience of corporate executives. It is found that there is a positive and significant relationship among emotional intelligence, spiritual intelligence and psychological resilience of corporate executives, it is also found that there is a significant impact of emotional intelligence and spiritual intelligence on psychological resilience of corporate executives in India.

### OBJECTIVE OF THE STUDY

1. To know the emotional intelligence of management students.
2. To study whether spirituality or meditation is affecting the emotional intelligence if management students.

### DATA ANALYSIS

Table 4.1 Regression Analysis

<i>Regression Statistics</i>	
Multiple R	0.491246
R Square	0.241323
Adjusted R Square	0.219951
Standard Error	8.155378
Observations	74

In order to estimate the effect of spirituality and meditation on the emotional intelligence Regression analysis is conducted.

Table 4.2 ANOVA test

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1502.06	751.03	11.29195	0.000055
Residual	71	4722.224	66.5102		
Total	73	6224.284			

Anova test has been performed as to check whether the data is interpretable or not, since the significance F is less than 0.5 the data set is an interpretable model.

Table 4.3

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	51.82411	1.864633	27.7932	6.88E-40	48.10614	55.54208	48.10614	55.54208
spiritual	8.458795	2.14039	3.951988	0.000181	4.190979	12.72661	4.190979	12.72661
meditation	3.615621	1.947784	1.856274	0.067564	-0.26815	7.499392	-0.26815	7.499392

Emotional Intelligence = f (Meditation, Spirituality)

Score of Emotional Intelligence = 51.82411 + 8.458795 D1 + 3.615621 D2

Where D1 = 0 non-Spiritual

D1 = 1 Spiritual

D2 = 0 non-Meditator

D2 = 1 Meditator

This indicates a normal individuals EI score is 51.82411, 8.458795 will be added to the respondents score when the individual is spiritual and 3.615621 will be added if the respondent is a meditator.

Table No: 4.4 Descriptive Statistics for the various dimensions of emotional intelligence

Descriptive Statistics	Self-Awareness	Self-Management	Motivation	Empathy	Relationship Management	Emotional Intelligence
Mean	12.311	11.068	13.365	11.973	10.730	59.446
Median	12.500	11.000	14.000	12.000	10.500	59.000
Variance	6.299	9.899	10.728	4.849	6.419	85.264
Std. Deviation	2.5098	3.1463	3.2754	2.2019	2.5336	9.2339
Minimum	7.0	3.0	5.0	5.0	5.0	36.0
Maximum	18.0	20.0	20.0	16.0	17.0	86.0
Range	11.0	17.0	15.0	11.0	12.0	50.0
Interquartile Range	4.0	5.0	4.3	2.3	4.0	11.5
Skewness	-.080	.045	-.488	-.724	.064	-.022
Kurtosis	-.694	.221	-.178	.839	-.472	.348

The above table 4.4 gives the descriptive statistics of various dimensions of emotional intelligence. According to the above results motivation is having highest mean score of 13.365

next highest score is for self-awareness 12.311 and it is followed by empathy 11.973, self-management 11.068, and relationship management 10.730. Skewness suggests that except motivation and empathy rest of the dimension scores are nearly normally distributed. Motivation and empathy are negatively skewed, means most of the scores given by the respondents are left side of average score. Kurtosis suggests that the distribution is flatter than a normal distribution with kurtosis values are less than 3. This indicates that the data has heavier tails and more extreme values than a normal distribution.

Table No:4.5 Comparison of average scores of various dimensions with respect to Gender

Dimensions	Gender	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t	Sig. (2-tailed)	Significance
Self-awareness	Female	34	12.559	2.2988	.3942	.4588	.782	.437	Insignificant
	Male	40	12.100	2.6871	.4249				
Motivation	Female	34	13.559	2.9562	.5070	.3588	.467	.642	Insignificant
	Male	40	13.200	3.5533	.5618				
Self-management	Female	34	11.529	3.6117	.6194	.8544	1.167	.247	Insignificant
	Male	40	10.675	2.6736	.4227				
Empathy	Female	34	11.971	1.7664	.3029	-.0044	-.009	.993	Insignificant
	Male	40	11.975	2.5368	.4011				
Relationship Management	Female	34	10.500	2.8524	.4892	-.4250	-.717	.476	Insignificant
	Male	40	10.925	2.2462	.3552				
Emotional	Female	34	60.118	9.3801	1.6087	1.2426	.574	.568	Insignificant
	Male	40	58.875	9.1880	1.4528				

Null Hypothesis (H<sub>0</sub>): There is no significant difference between the average scores given by the male and female for various dimensions of the emotional intelligence.

Alternative Hypothesis (H<sub>1</sub>): There is a significant difference between the average scores given by the male and female for various dimensions of the emotional intelligence.

The t-test was conducted to compare the mean scores and to test the hypothesis of various dimensions of emotional intelligence. From the results it is evident that the two tailed significant value of all the dimensions are more than 0.05 which indicates that there is no significant difference between the average scores of the dimensions given by the male and female at 5% level of significance. That is male and female are having on average same emotional intelligence.

Table No: 4.6 Comparison of the average scores of various dimensions with respect the meditator and non-meditator

Dimensions	Meditation	N	Mean	Std. Deviation	Mean Difference	t	Sig. (2-tailed)	Significance
Self-awareness	Non-Meditator	42	12.024	2.6085	-.6637	-1.129	.263	Insignificant
	Meditator	32	12.688	2.3615				
Motivation	Non-meditation	42	12.286	3.5011	-2.4955	-3.486	.001	Significant
	Meditation	32	14.781	2.3243				
Self-management	Non-meditation	42	10.738	3.1858	-.7619	-1.032	.305	Insignificant
	Meditation	32	11.500	3.0900				
Empathy	Non-meditation	42	12.000	2.3374	.0625	.120	.905	Insignificant
	Meditation	32	11.938	2.0468				
Relationship Management	Non-meditation	42	10.214	2.6918	-1.1920	-2.048	.038	significant
	Meditation	32	11.406	2.1681				
Emotional Intelligence	Non-meditation	42	57.262	9.5306	-5.0506	-2.406	.016	significant
	Meditation	32	62.313	8.1059				

Null Hypothesis (H0): There is no significant difference between the average scores given by the meditator and non-meditator for various dimensions of the emotional intelligence.

Alternative Hypothesis (H1): There is a significant difference between the average scores given by the meditator and non-meditator for various dimensions of the emotional intelligence.

From the results it is evident that the two tailed significant value of motivation, relationship management and emotional intelligence are less than 0.05. And rest of the dimensions are having significant value more than 0.05.

We can infer that there is a significant difference between the average scores given by the meditator and non-meditator with respect to motivation, emotional intelligence, and relationship management. Rest of the dimensions, self-awareness and self-management are having significant difference between the averages.

Table No: 4.7 Comparison of the average scores of various dimensions with respect the spiritual and non-spiritual

Dimensions	Spiritual	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t	Sig. (2-tailed)	Significance
Self-awareness	Non-Spiritual	21	11.619	2.7290	.5955	-.9659	-1.505	.137	Insignificant
	Spiritual	53	12.585	2.3894	.3282				
Self-management	Non-Spiritual	21	9.810	3.2345	.7058	-1.7565	-2.223	.029	Significant
	Spiritual	53	11.566	2.9969	.4116				
motivation	Non-Spiritual	21	11.381	3.7078	.8091	-2.7700	-3.528	.001	Significant
	Spiritual	53	14.151	2.7484	.3775				
Empathy	Non-Spiritual	21	10.857	2.5157	.5490	-1.5580	-2.878	.005	Significant
	Spiritual	53	12.415	1.9159	.2632				
Relationship Management	Non-Spiritual	21	9.190	2.1591	.4712	-2.1491	-3.540	.001	Significant
	Spiritual	53	11.340	2.4254	.3332				
Emotional Intelligence	Non-Spiritual	21	52.857	9.1831	2.0039	-9.1995	-4.302	.000	Significant
	Spiritual	53	62.057	7.9237	1.0884				

Null Hypothesis (H<sub>0</sub>): There is no significant difference between the average scores given by the spiritual and non-spiritual for various dimensions of the emotional intelligence.

Alternative Hypothesis (H<sub>1</sub>): There is a significant difference between the average scores given by the spiritual and non-spiritual for various dimensions of the emotional intelligence.

From the results it is evident that the two tailed significant value of self-management, motivation, empathy, relationship management and emotional intelligence are more than 0.05.

We can infer that there is a significant difference between the average scores given by the spiritual and non-spiritual with respect to motivation, emotional intelligence, and relationship management.

## CONCLUSION

There is no difference in Emotional Intelligence between male and female. The average score of emotional intelligence of every individual is 51.8241, an individual's score who includes spiritual

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time in the daily activities is 60.282895 and individual who includes meditation as daily activity is 55.439721 and the average score of individuals who includes both spiritual time and meditation is 63.898516. Spirituality and meditation show a positive impact on emotional intelligence on an individual's emotional intelligence.

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## A MULTISCALE CLIQUE CATEGORIZATION TECHNIQUES FOR IDENTIFYING COMMUNITIES IN SOCIAL NETWORKS

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### ABSTRACT

Identifies societies that are linked together like nodes is a difficult task in the revision of social network results. It has been widely discussed in the social networking world in terms of fundamental graph structure as well as connectivity between nodes in order to advance the eminence of discovered societies. For detection of a group, a modern methodology focused on repeated patterns and behaviour of users on networks is proposed. This analysis utilized association rule mining to find groups of users that have common preferences and behaviours. The Clique Percolation strategy, which was originally designed for guided networks for driving populations, is expanded by using the prototypes found to find network components. The perception of societies is tested using group metrics such as the bulk of the community, slice of the community, and modularity of the community. It uses a sample twitter data of sports individual networks to validate the proposed group detection methodology with F-measure and accuracy, demonstrating that the proposed method principals increase community detection efficiency. During the analysis metrics accuracy, recall and F-measure are high, the proposed multiscale clique percolation approach outperforms CPM, PCPM, ECPM and HCPM in identifying overlapping groups.

***Keywords** ECPM, Frequent Pattern Mining, F-measure, Recall, Precision, Multiscale Clique and Clique Percolation Method (CPM).*

### INTRODUCTION

Networks have become as common as facts, and they can be naturally linked to graph architectures in a variety of disciplines. The problem of group detection is a major issue in the world of social networking. The aim of the group detection problem is to divide a network through dense graph regions. Such dense regions often refer to groups that are closely linked and as a result, may be said to belong to a group. A maximal clique (sub-graph) problem exists of detecting sub-graphs in a network. One of the goals of the maximum clique process is to find one of an unspecified directed graph's maximum cliques.

One of the most common fields of group science is identifying fraction in networks. Groups are commonly thought of as network subgraphs, with a high density of connections within the



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subgraphs as well as a relatively low density among them. The continuity of segment construction states that connected devices are separated into allotments rather than being homogeneous, with a greater chance of links between nodes of same classification than between nodes of different classes. There are several methods to detecting communities, covering not only various observers and partitioning techniques, but also different concepts of what constitutes a population. Since networks created by seen processes and occurrences are unlikely being well by the represented structural principles, variation is a strength.

One of the first algorithms that allowed was the clique percolation method. K-cliques provided the fundamental building blocks of the populations and communities were linked to k-clique percolation clusters. In this method, the standard rule for determining the best partitioning is to change the system to the critical point of k-clique percolation. The rationale behind this edict is based on a straightforward substantial attitude: the creation of a massive percolating society will merge several smaller groups, resulting in a strongly organised community system.

### **Related Works**

Prior to 1994, Pardalos et al., have a thorough review of exact algorithms for optimal clique. Tomita et al. calculated the worst-case time complexity of generating all maximal cliques.

Prosser provides a statistical study that compares and contrasts different detailed algorithms for calculating the maximal clique. The vast majority of current work focuses on sequential maximum clique finders, but parallel algorithms are becoming increasingly popular.

Eppstein et al., demonstrated how green facts structures can be used to quickly develop algorithms for clique enumerations.

Schmidt et al., extended parallel algorithms for enumerating maximal cliques. Xie et al., demonstrated the connection between the difficulty of enumerating cliques and repeated pattern mining.

To quantify all maximal cliques quicker, the Du et al., take advantage of both the houses of social as well as statistics networks. In contrast, we demonstrate how pruning steps and bounds can be used to extend quick algorithms to solve the maximal clique problem for these networks with temporal stable components.

Palla et al., proposed that a population could be explained as a blending of fewer subgraphs with mutual nodes. A k-clique group, according to the creators, is the sum of all k- cliques that can be obtained from each other through a cycle of neighbouring k-cliques. If two k-cliques share k-1 nodes, they are said to be neighbours. A two-clique group was the combination of such edges that can be achieved from each other across a set of mutual nodes.

Leskovec et al., looked at how well a variety of ranking tasks performed in terms of their ability

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to uncover certain group goodness characteristics. In order to verify their accuracy across perturbations, the authors used several real-life relaxation techniques on network populations. Fortunato et al., conducted a study that compared metadata and structural populations using a dozen different group identification methods. It evaluates the accuracy of these correlation score matrices approaches using the NMI metric. In particular, hierarchical systems in societies were taken into account in this study.

This methodology was contrasted with the informative method, in which scholars used a combination of eminence metrics to comprehensively point out and expose dynamics in real-world cultures.

The maximal clique could be accurately obtained from a simple directed graph  $G$  by listing all of the cliques contained in it and choosing the largest of them. Carraghan et al., proposed a series of easy-to-follow laws that excludes enumerating all cliques in favour of a much smaller partial enumeration. A pruning approval is used to apply a discount in an enumeration approach that, unexpectedly, decreases the search area. The algorithm operates by performing a depth first search of vertex  $v_i$ , with the aim of discovering the largest clique containing that vertex  $v_i$ . The set of rules contrasts the large variety of final vertices which might theoretically form a clique containing vertex  $v_i$  against the scale at any level of the search one of the strongest cliques witnessed so far. If the large variety is discovered to be lower, the rules are flipped.

Rossetti et al., proposed a novel method for evaluating algorithm performance by comparing detected populations to ground-truth data. It assessed the accuracy of group discovery approaches using scatter plots using precision score, recall score, and then their harmonic mean, recognized as the f1-measure.

Cherif et al., provided proof of the distinction between traditional detection concert and topological goodness consistency in terms of similarity metrics. They demonstrate that high efficiency does not always mean strong systems.

## **METHODOLOGY**

The current approach is addressed in order to perform efficient data overflow and solve the drawbacks.

### **Clique**

Consider a directed graph  $G = (V, E)$ , where  $V$  specifies the set of vertices and  $E$  represents a set of edges, the graph  $G_1 = (V_1, E_1)$  is called a sub-graph of  $G$  if  $V_1 \subseteq V$ ,  $E_1 \subseteq E$  and the vertices  $(v_i, v_j) \in V_1$ . If there is indeed a side for any pair of vertices, a subgraph  $G_1$  is said to be completed. As seen, a complete sub-graph is also known as a clique. If a clique isn't necessarily found in another clique, it's higher. The cardinality of the biggest clique of  $G$  equals the clique

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spectrum of a line, which is obtained by setting the maximum cliques. The clique form, in which each pair of vertices must have its own location, implies a number of rules for real-world modelling. As a result, approaches have been suggested in order to ease up the clique principle.

### **K-Clique**

Luce et al., proposed the k-clique space base Concord companies, where k is the maximal course length between each pair of vertices. The k-clique is a subclass of vertices C such that gap  $d(i, j)$  is okay for each  $i, j \in C$ . Since the space between the vertices is one edge, the 1-clique is similar to a clique. The two-clique is a maximally complete subgraph through one or two edges of course length. The bond in social relationships exemplifies the path gap of might. Each user of a social networking site may reach out to his or her own contacts in addition to the six people two and three tiers apart. The rise in price ok leads to an incremental relaxation of clique club criterion. The first step in creating a maximal clique graph is deciding clique nodes. Tough and quick of maximal cliques inside unique graph G are used as clique nodes of the corresponding maximal-clique graph  $G_c$  in this study. Given that each maximal clique is also one of the largest cliques to which nodes in G belong, this work translates the dedication strategy of clique nodes into finding all largest clique(s) to which each node in G belongs and designing a method as a known package. The clique nodes are determined in descending order according to their clique sizes in a series of rules 1. Since nodes with higher levels are more likely to represent greater maximal cliques, the willpower equation measures the degree of each node in G first and then sorts the nodes by degree.

### **Clique Percolation Method**

Clique Percolation Method (CPM) is a clique-based overlapping group detection algorithm that is commonly used in this domain. Because of the high density of connections between nodes within a network, it is apparent that edges within a group form cliques. Edges within cultures, i.e. intercommunity edges, forming groups, though, is implausible. Each clique percolation approach operates under the premise that a group is made up of alternating sets of completely connected subgraphs. As a result, this algorithm searches for neighboring cliques to detect groups. It begins by looking at the all the network's k-cliques (cliques of size k). When all of the k-cliques were discovered, a new graph known as a clique-graph is formed, with each vertex representing a k-clique. If two nodes in this clique graph break (k-1) members, they are connected. A group is represented by each linked module in the clique-graph.

### **Parallel Clique Percolation Method (PCPM)**

PCPM parallelizes the quest for pairs of cliques by taking advantage of the amount of cores available on the CPU. It also necessitates determining the number of clusters that would be used

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to parallelize the execution. In a shared-memory platform, a technique is parallelized and output outcomes are shown. The height of the largest clique that includes the vertex  $v_i$  is computed in the algorithm's  $i$ th iteration with a for loop. Different approaches discover maximal cliques of various sizes during such a parallel computation. The new globally largest maximum clique size is transmitted to all systems as soon as it is found, in order for the pruning measures to be as accurate as possible. The peak power clique sized is stored as a common variable available to all unit operations in a shared-memory instruction set and its value is modified by the appropriate processor at any given time.

### **Extended CPM**

“On the Twitter dataset of nodes, the Apriori algorithm for regular pattern mining is used. A frequent pattern is a data pattern that seems to repeat itself on a regular basis, and the result is a list of nodes that are observed in a similar interest. The network  $G$  graph is used to classify related interest groups using twitter data as feedback. The use of association rule mining to locate identical interest groups are used as a source of information. To locate related interests in twitter info, association rule mining can be used. Association rule mining identifies interesting correlations and/or relationships within a large number of data objects. This method utilizes association rules to find connections between transactions in Twitter info. The network  $G$   $k$ -cliques have all been established”. The novel network known as a clique-graph,  $GC$  is created, in which each node represents an established clique and two nodes (cliques) in the network,  $GC$  are connected by an edge if they share  $k + 1$  member. After identifying the connected components in  $GC$ , each connected component in  $GC$  represents a group. The defined group structure for the network  $G$ , is formed by this collection of communities.

### **Proposed Multiscale Clique Percolation Method**

“The clique percolation approach is an overlapping group identification algorithm that assumes a community is made up of overlapping sets of completely connected subgraphs. Since the connections between nodes within the same community are dense, edges within a community form cliques as a result of their density. As a result, this algorithm finds groups by looking for cliques that are close together. It aims to look at all of the network  $k$ -cliques or cliques of size  $k$ . When all of the  $k$ -cliques have been discovered, a new graph known as a clique-graph is formed, with each vertex representing a  $k$ -clique. If two nodes in this clique graph share  $(k + 1)$  members, they are related. A group is represented by each related part in the clique-graph.

CPM takes the input the node  $G$  as well as the clique size  $k$ , which is selected based on the optimum  $z$ -score of  $k$ -core groups. The network  $G$ 's  $k$ -cliques have all been established. Clique-graph ( $GC$ ) would be a new network in which each node represents an established clique and

two nodes (cliques) in the network are linked by either an edge if their share  $k + 1$  member. In GC, key points are defined and each connected component represents a group. As a result, the established group framework for the network  $G$  is formed by the collection of communities. The algorithm will find all maximum possible cliques throughout the network and also the number of iterations is raised from  $k-1$  to  $k+1$  to identify each clique.

When two cliques meet  $k - 1$  node, they can percolate into one another and become one group. This only merges community if their share a greater number of nodes, so by finding the merge requirement more restrictive, it results in a network with poor coverage. If  $k$  is set too high, all groups without a clique of at least size  $k$  are excluded, which is overly stringent when  $k > 7$ . The alternative is to integrate two cliques only when the smaller clique is rooted in the larger clique at least  $x$  percent. The graph's coverage does not decline when the threshold is raised. It is important to determine an ideal clique size in light of this variety. The ideal clique size for enhancing the efficiency of CPM is found using  $k$ -core communities developed by recursively eliminating all nodes with level lower than  $k$  among a graph  $G$  through using maximal  $k$ -core algorithm, because the maximal  $k$ -core algorithm proved to be more effective at identifying communities both maximal  $k$ -clique and maximal  $k$ -plex”.

## EXPERIMENTAL AND RESULTS

The twitter application development interface is used to capture real-time network data for this research. Twitter is a rapidly growing, open and extremely fast social network that has quickly established itself as a significant source of information. Twitter is a microblogging social networking site that was established in March 2006 and is rapidly growing. It is a well-known social networking platform that is used all over the world.

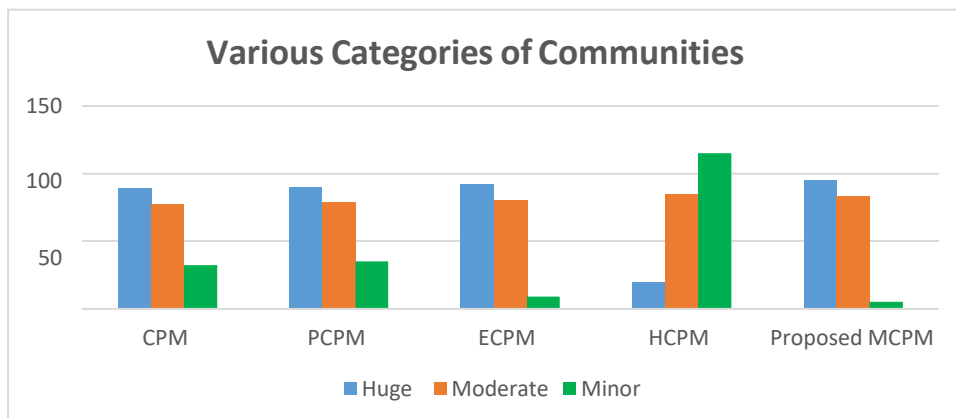
In this work, information of the popular cricket player's friends and followers list were crawling from his twitter account for this project. Using a computational tool, data is obtained from the Twitter network in real time.

**Table 4.1 Various Categories of Communities**

Algorithm	Huge	Moderate	Minor
CPM	89	77	32
PCPM	90	79	35
ECPM	92	80	9
HCPM	20	85	115
Proposed MCPM	95	83	5

The CPM, PCPM, ECPM, HCPM, but instead Proposed MCPM techniques are calculated with different categories then compared in Table 4.1 and Fig. 4.1 displays the efficiency of

various categories obtained in this experiment and findings.



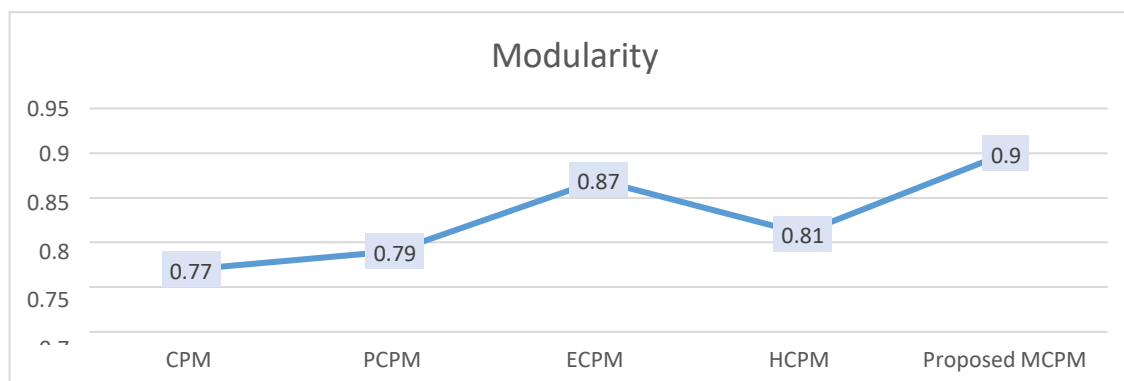
**Fig.4.1 Various Categories of Communities**

On the criteria of consistency, recall and F-score, the suggested MCPM is compared to CPM, PCPM, ECPM and HCPM in recognizing overlapping communities. By comparing the expected and ground truth populations of a given network, these measurements were calculated.

**Table 4.2 Modularity Values**

Algorithm	Modularity
CPM	0.77
PCPM	0.79
ECPM	0.87
HCPM	0.81
ProposedMCPM	0.90

The modularity values of the CPM, PCPM, ECPM, HCPM and Proposed MCPM algorithms are compared in Table 4.2 and Fig.4.2 displays the efficiency of different categories obtained from the experiments and results.



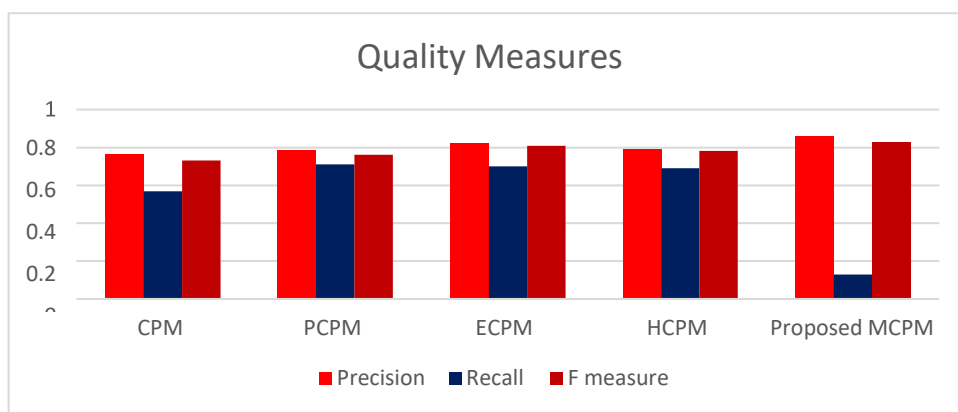
**Fig.4.2 Modularity Values**

On the basis of accuracy, recall and F-score, the suggested MCPM is compared to CPM, PCPM, ECPM, and HCPM in distinguishing overlapping communities. By comparing the expected and real information on societies of a given network, these measurements were calculated.

**Table 4.3 Quality Measures**

Measures	Precision	Recall	F measure
CPM	0.76	0.57	0.73
PCPM	0.78	0.71	0.76
ECPM	0.82	0.7	0.81
HCPM	0.79	0.69	0.78
Proposed MCPM	0.86	0.13	0.83

Table 4.3 compares the performance of CPM, PCPM, ECPM, HCPM and ProposedMCPM efficiency metrics for separate categories based on the analyses and findings, and Fig. 4.3 indicates the performance of various categories.



**Fig.4.3 Quality Measures**

**CONCLUSION**

In this analysis, frequent trend mining has been used to find common interest groups in the Twitter network, but also used to find overlapping communities using the clique percolation process. By comparing expected populations to ground reality communities, the success of this expanded clique percolation mechanism can be calculated. The increased modularity performance of the MCPM-generated network communities confirms a greater density of social groups. In HCPM, ECPM, CPM and PCPM, accuracy, recall and F-measure are all strong, indicating that the proposed approach outperforms in identifying overlapping communities. The experimental findings conducted in this paper, as well as other existing work on variety of community detection algorithms, show that association rule mining of frequent networking groups improves community detection accuracy. Overall, the current study would improve the accuracy of network population identification.

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## AN ANALYTICAL STUDY ON DIGITALIZATION OF HOSPITAL SERVICES IN INDIA IN THE CONTEXT OF A GLOBAL SCENARIO.

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### ABSTRACT

Digitalization is the cause of major transformations in the Industrial sector. Many major industries are seeing sweeping changes and it has impacted the growth of the Industries. The healthcare sector has also seen major changes in its functioning and it is the healthcare Industry that will have a high potential to be transformed by digitalization. The future of healthcare services will be different in the future and the change will be towards consumer-centric healthcare. This will allow people to have more responsibility in managing their healthcare and the health of their family members. This paper focuses on the aspect of how digitalization has impacted healthcare services and how it will lead to improvement in productivity and drive down the cost of healthcare services. Digitalization will ultimately lead to supporting and accelerating the systemic shift to value-based healthcare services.

*Keywords* Digitalization, health care services, intelligent health enterprises, patient-centric

### INTRODUCTION

Digitalization is the cause of large-scale and sweeping transformations across multiple aspects of business, providing unparalleled opportunities for value creation and capture. While it is clear that digital technology will transform most industries, several challenges need to be understood. These include factors such as the pace of changing customer expectations, cultural transformation, outdated regulation, and identifying and accessing the right skills. Digitalization in the healthcare sector is yet another important industry that has seen a drastic change over the years. The introduction of digital services will be among the most important factors in transforming healthcare over the next decade. Yet while few industries have the potential to be changed so profoundly by digital technology as healthcare.

### REVIEW OF LITERATURE

Nichol, Peter B. In his paper discussed the role of digitalization that leads to better services to the patients and thus leads to satisfied healthcare service.

Wheatley, Benjamin. "Transforming Care Delivery through Health Information Technology." The Permanente Journal of Healthcare and Sciences talk about the transformational shift in

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healthcare services post-digitalization. This article also discusses the various parameters that have led to the high satisfaction of healthcare services.

New Health Economy conducted by Cisco & PWC jointly says, Digitalization has the potential to affect every aspect of care. The study was conducted in India jointly by Cisco and Price water house Cooper and it was inferred that it leads to the transformation of care.

Porche consulting firm India has done a detailed study on the implications of digitization in the health care services in India highlighting the benefits, impact and disadvantages faced, the challenges faced by innovators should not be underestimated.

### **STATEMENT OF THE PROBLEM**

Digital Technology has transformed the way we live. Consumers already encountered big changes in the financial services, transportation and manufacturing industries. Almost every industry has been heavily impacted by technology. The new digital world is now going to revolutionize the healthcare industry. The impact of technology on healthcare calls for a study. This study is done to find out the changes that are driven in the healthcare industry in the Indian scenario and how it leads to better services.

### **OBJECTIVES OF THE STUDY**

1. To study the impact of digitalization on the services of the healthcare Industry on the perception of service benefits and quality.
2. To analyse the advantages and disadvantages of digitalization in the services of the Healthcare industry.

### **METHODOLOGY**

This paper is a descriptive-based study. The data is collected from research articles and other related sites. Hypothesis Testing was done using primary data collected through an opinion survey among doctors. Chi-square Test was used to test the hypothesis.

What will digital healthcare look like?

A truly digital healthcare industry would revolutionize diagnosis and treatment, with a shift in focus to prevention and management. With the widespread introduction and seamless coordination of digital apps and connected devices, the healthcare industry could be transformed from a reactionary system to one that is proactively centred on the patient and driven by data. The most tangible, expected changes will be that care will move closer to the home, and citizens will have more responsibility for managing their health and well-being. Perhaps the most noticeable changes for an individual would be that significantly fewer trips to a physician or a hospital would be required.

Individuals would become more engaged to manage their health and care. Through self-care and monitoring of vital signs, an individual's health could be continuously tracked. If needed, a virtual care consultation could be arranged, so that individuals could receive medical advice without leaving their homes.

Digital healthcare would have a profound impact on the healthcare industry itself. Highly skilled and highly paid healthcare professionals would be able to focus their efforts on more complex and higher-value cases. Digital healthcare has the potential to bring about not just small efficiency improvements, but a step change in the productivity of the healthcare industry along with a significant impact on health outcomes. Healthcare in India is facing the challenge of meeting global needs. The need of the hour in India is to march towards digitalization.

### **Dimensions of Digitalization**

IT-supported and virtually-connected overarching planning tools will improve foresighted scheduled appointments by uniting all patient interfaces between the various health stakeholders.

- Proactive planning of patient care enables a fully-automated treatment path that respects treatment deviations/
- Digital planning safety can be used for patient communication i. e. the patient will have total transparency of treatment plan (examination schedule, appointments, dismissal schedule) and can anticipate upcoming treatments in advance without having to contact healthcare entities separately. More preventive check-ups and more effective continual monitoring of patients' vital data will be achieved through digitalization.
- An electronic health file is created for every patient, which leads to a reduction in documents and time since medical records are automatically generated.
  - Patient-centred healthcare ecosystem
  - Digital literacy in medical education (Medical Apps)
  - Customized health apps, embedded sensors & artificial organs can be the future to name a few.
  - Robotics-assisted nursing care and surgery could also be the future.
  - Digitalization helps research scholars, educationists, administrators and students to collect their data easily with a high level of accuracy.

### **Four digital themes of Digitalization in Healthcare:**

Four digital themes – smart care, care anywhere, empowered care and intelligent healthcare enterprise – have been identified, which will be of crucial importance to the digital transformation of healthcare over the next decade.

- 1) Smart care will improve patient outcomes and lower the cost of healthcare through the use of precision medicine, robotics and medical printing.
- 2) Care anywhere will see healthcare move closer to the home, through advances in the connected home and virtual care, which will also help broaden access, especially in maturing
- 3) Empowered economies. care, through the development of 'living services' will enable citizens to take a more active role in managing their well-being and healthcare.
- 4) Intelligent health enterprises will provide data-driven solutions that enable healthcare workers and their enterprises to maximize their efficiency and allow patient health to be monitored more effectively in real-time.

Digital initiatives in health can produce significant benefits for patients and healthcare providers. Based on an opinion survey among physicians the following benefits were measured against the Digitalization parameter.

- Improved outcomes and treatment quality and patient care
- Improved personal care and psychological comfort
- Increased opportunities for monitoring and quality improvement.
- Patients are self-reliant, better informed and comfortable finding information independently.
- Lower the cost of healthcare through the use of precision medicine, robotics and medical printing.
- Inclusion of Patients irrespective of digital literacy to manage their well-being and healthcare

### **Chi-Square Test**

To examine the association between the select variables and the level of Digitalization of Health care services, the Chi-square test has been employed.

**Ho:** There exists no association between the select variables and the level of Digitalization of Health care services

Table 1

Variables Considered	d.f	Calculated $\chi^2$ Value	Table Value		Remarks
			5%	1%	
Improved outcomes and treatment quality and patient care	2	6.775*	5.991	9.210	Significant
Improved personal care and psychological comfort	2	0.291*	5.991	9.210	Not Significant
Lower the cost of healthcare through the use of precision medicine, robotics and medical printing.	2	0.421*	5.991	9.210	Not Significant
Patients being self-reliant, better informed and comfortable finding information independently.	2	27.133**	5.991	9.210	Significant
Increased opportunities for monitoring and quality improvement.	6	31.667**	12.592	16.812	Significant
Inclusion of Patients irrespective of digital literacy	2	0.065**	3.031	4.691	Not Significant

\* Significant at five percent level

\*\* Significant at one percent level

Out of the total ten variables selected for testing, six variables are found to be associated with client relationship management. Age, educational qualification and occupation were found to have a significant association at a five per cent level whereas the variables like gender, the behavior of duty nurses and physical facilities are found to have a highly significant association at a one per cent level with the client relationship management.

## FINDINGS

There is a strong urge for people in India to move towards digitalization quickly. The following are the findings based on a meta-study of kinds of literature based on the Digitalization of the Hospital industry in a global scenario.

- Physical visits to the doctor are declining and people are getting geared to e-prescriptions.
- Consumers have an appetite to use technology-enabled services in healthcare services in metro cities in India.
- New technology helps patients to follow their treatment more systematically.

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- The convergence of digital technology makes healthcare more accessible and available to patients.

## **DISADVANTAGES OF DIGITALIZATION**

### **Economic cost burden**

Improvements in health and quality of life have come at a high cost despite advances in science and technology. Economic growth, particularly in emerging countries, has contributed to the improved health of the world's population, but much of this progress has been achieved through increasingly large expenditures by governments, health organizations and citizens.

### **Ageing populations**

Older people require more medical care than younger people, so ageing populations require greater healthcare resources. Increased incidence of chronic disease: Unhealthy diets and sedentary lifestyles are among the factors driving a rapid increase in the prevalence and coincidence of chronic diseases. Old-age people find difficulty in accessing Digital data and handling newer technology.

### **The unsustainable cost of care**

Government policy, regulation and mandates: Concerns about costs, quality and access to healthcare are leading many countries to introduce major reforms to their health systems. Countries are also looking to reform healthcare payments, signalling a shift from fee-for-service to paying for value or outcomes. This will be a great challenge for countries with poor economies, developing countries and the cost of implementation, training, and education.

## **CONCLUSION**

Digital health initiatives in healthcare organisations can produce significant benefits to patients and healthcare providers. Improvements to the quality, safety and efficiency of patient care are achievable via digital interventions. The study indicates that a combination of digital interventions may yield greater benefits. However, the successes of these interventions are dependent on ensuring a rigorous implementation process. If it is properly implemented digitalization will be a boon and all the individuals should get geared to enter into the world of digitalization in the healthcare industry. This will help in improving healthcare service quality.

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## STUDY ON THE FACTORS AFFECTING CONSUMERS PURCHASE INTENTION IN SOCIAL MEDIA MARKETPLACE.

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### ABSTRACT

The advent of social media applications tends to provide platform for the retailers to sell their products directly to the consumers through social media marketplace. Though numerous studies have explored the various antecedents of consumers Purchase Intention in online shopping, the current study is focused on the consumers Purchase Intention in the social media marketplace. The factors affecting the social media marketplaces are Convenience, Time Saving, Pricing, Trust, Perceived Product Value and Perceived Service Quality. The Research Instrument used to measure the constructs of the study has been adopted and confirmatory factor analysis is performed to validate the reliability and validity of the collected 288 samples for this study. The Path analysis is executed to examine the proposed hypothetical statements using SEM analysis. It is proved that Perceived Service Quality has greater positive impact on the consumers Purchase Intention unlike the perceived Product Value. The antecedents like Convenience, Pricing and Trust have positive impact on the Perceived Product Value. Whereas, Pricing and Trust has significant impact on the Perceived Service Quality. Based on the findings the vendors of the social media marketplace are suggested to focus on all the mentioned constructs such as Convenience, Time saving, Perceived Product Value and Perceived Service Quality in order to be more competitive in the social media marketplace. Finally, the Limitations of the current study and the Future research direction has been discussed to improve the literatures related to Social Media Marketplace.

**Keywords** *Consumers Purchase Intention, Social media marketplace, Perceived Product Value, Perceived Service Quality.*

### INTRODUCTION

In the recent years, Internet has been transmuted from providing only a static source of Information to an interactive platform using which an individual can share the content created and can update various information (Culnan, McHugh & Zubillaga, 2010). This concept of web platform for collaborative interaction and computing was more supported during the development of Web 2.0 technology (Hsu, Ching, & Grabowski, 2014). Social media refers to the web-based platform where the user can create, share and view various forms of data such as text, image and

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audio in a convenient and easy way. The communication between the vendors with the hundreds of people regarding their products and their promotion has been boosted with the help of such social media applications. Therefore, the effect of vendor-consumer relations has been widely magnified in the social media marketplace (Mangold, & Faulds, 2009). This also provides opportunities for the consumers to select particular brand, product or vendors and use it to purchase the products. In order to survive under such consumer dominated marketplace, the vendors have to understand the factors that affect their Purchase Intention and also to crack them as their strategic opportunities (Constantinides, 2013). The marketers usually aim for the outcomes of Purchase Intention (Chopdar, & Balakrishnan, 2020) from the social media marketplace. As the number people using social media applications are increasing drastically it is essential for the traditional retailers to analyse how consumers use social media applications for their purchase and the factors affecting their Purchase Intention.

(Creyer, & Ross, 1996) has examined the role of Perceived Product Value in association with the corporate behaviour and how it influences the consumer behaviour. With a wide review of literature, it was found that a very few studies have been concentrated on the impact of Perceived Product Value on the consumers Purchase Intention from the social media marketplace. The study also uncovers and validated the antecedents of Perceived Product Value in social media marketplace (De Toni, Eberle, Larentis, & Milan, 2018). Numerous literatures have explored only the impact of Perceived Service Quality on consumer Satisfaction (Spreng, & Mackoy, 1996; Lee, Lee, & Yoo, 2000; Tsoukatos, & Rand, 2006; Kondasani, & Panda, 2015). From the review it was evident that the antecedent of consumer's satisfaction tends to be the Perceived Service Quality which in turns affect the Purchase Intention of the Consumers. The study also examined the precursor of Perceived Service Quality and its impact on it.

The rapid growth of business in social media marketplace was mainly due to the factors that enhances the Purchase Intention from the social media marketplace. Therefore, the study aims to study such factors and the extent to which the factors are impacting the Purchase Intention from the social media marketplace. Perceived Product Value and Perceived Service Quality are the notable precursors that helps to achieve the expected outcome of the Purchase Intention based on the past literatures. The consecutive sections of the study were formatted in the following manner: Initially numerous literatures were reviewed and the theoretical base of the study was proposed, which was followed by the proposed research model and hypothetical statements of the study. Under research methodology, the measures developed, design and sampling methods were described in detail. The subsequent section consists of the results of the data analysed for the

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study. Then, the theoretical Implication, Practical Implication and Direction for future research were discussed. Finally, the research was concluded in the last section.

## **REVIEW OF LITERATURE**

### **Social Media Marketplace**

Traditional business process was changed rapidly due to the usage of social media and its technological advancements (Bui, 2014). Social media is defined as a group of Web based applications that are built on technological foundations and allows the user to create and exchange any content created by the users (Kaplan & Haenlein, 2010). Some of the highly used social media applications in India are WhatsApp, Facebook, Instagram and YouTube (Patmanthara, Yuliana, Dwiyanto, & Wibawa, 2019). These social media applications serve as the source of information used by individual to get educated about any products, services and brands (Mangold, & Faulds, 2009). Still there is a need to explore new technologies and innovations that enables the customers to stay at their convenient places and fulfil their requirements (Tanveer, Khalil, Ali, & Shinwari, 2020). Social media marketplace fulfils that need and influence the consumers Intention to Purchase (Kapoor, Tamilmani, Rana, Patil, Dwivedi, & Nerur, 2018). Therefore, the companies which do not perform any social media marketing activity are missing an opportunity to reach the consumers directly.

### **Perceived Product Value**

The Perceived Product Value is defined as the ratio of perceived benefits relative to perceived sacrifice (Naumann, & Jackson, 1999). Perceived Product Value was described as an overall psychological assessment of an individual goods and services (Yang, & Peterson, 2004). Consumers Perceived Product Value serves as the noteworthy factor that affect the consumers desire for that product which leads to consumers wiliness to purchase that product i.e Purchase Intention (Chang, & Wang, 2011). Numerous studies proposed positive relationship between the Perceived Product Value and consumers Purchase Intention (Tsotsou, 2006; Rosillo-Díaz, Blanco-Encomienda, & Crespo-Almendros, 2019; Chen, 2012; and Wang, 2010).

### **Perceived Service Quality**

Perceived Service Quality deals with the overall inconsistency between the expectation of a consumer and the actual service provided (Grönroos, 1984). Thus, quality perceptions are created only when the relationship between the vendors and consumers are actively upheld (Eriksson, Majkgård, & Sharma, 1999). The Perceived Service Quality was the most debated topic among the service marketing literatures (Lee, & Yu, 2018). Yet many researchers used Perceived Service Quality as a multi-dimensional construct (Brady, & Cronin Jr, 2001). The consumers Purchase Intention was impacted greatly with the Perceived Service Quality. With the increase in the

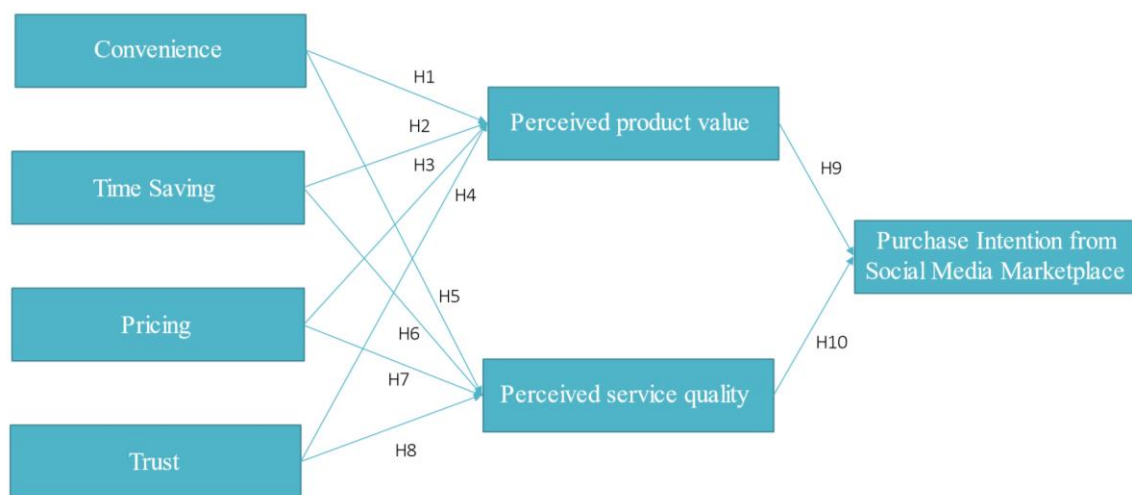
Perceived Service Quality, the probability of purchase Intention from that vendor also increases (Kurtz, & Clow, 1992).

### Proposed Research Model

Based on the review of literature the research model has been proposed as shown in Figure-1.

**Figure 1**

Proposed Research Model



### HYPOTHESIS

Hypothetical statements developed based on the proposed research model and previous literatures were as follows.

#### Convenience

“Convenience is usually discussed in connection with the classification of goods and services”. From the review of literature, it is evident that the independent variable convenience served as the direct predictor of Perceived Product Value (García-Fernández, Gálvez-Ruíz, Fernández-Gavira, Vélez-Colón, Pitts, & Bernal-García, 2018; Pham, Tran, Misra, Maskeliūnas, & Damaševičius, 2018; Sahai, Sharma, & Singh, 2020). Also, various studies provide beneficial insights on the impact of convenience on Perceived Service Quality (Kaura, Prasad, & Sharma, 2015; Roy, Shekhar, Lassar, & Chen, 2018; Hsu, Chen, Chang, & Chao, 2010). The retailers are encouraged to enhance the factor convenience (Cheng, Gaur, & Rahim, 2020) in order to stimulate the Perceived Product Value and Perceived Service Quality which leads to consumers Purchase Intention. Hence the Hypothesis are formulated as follows:

H1: Convenience have significant positive impact on Perceived Product Value.

H5: Convenience positively influences the Perceived Service Quality

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### **Time Saving**

In these fast-paced life, people will choose the least amount of time to get the task done. Thus, it becomes a factor of time saving (Yeo, Goh, & Rezaei, 2017). From the consumer perspective the shopping through social media marketplace is helpful as it saves time. Many past researches investigate the aspect of Time saving that impacts the Perceived Product Value and concluded that the time saving has positive impact on the Perceived Product Value (Marmorstein, Grewal, & Fishe, 1992; Alreck, DiBartolo, Diriker, Dover, Passyn, & Settle, 2009). Moreover, studies also show the significant positive impact of Time Saving on the Perceived Service Quality (Surjaatmadja, & Saputra, 2020; Kim, Tappis, Natiq, Fried, Lich, Delamater, & Trogdon, 2022). The time saving aspect of online shopping increases the number of customers (Surjaatmadja, 2021). Therefore, the hypothesis are formulated as follows:

H2: Time Saving Positively affects the Perceived Product Value

H6: Time Saving Positively influences the Perceived Service Quality

### **Pricing**

The price is the currency that the consumers are willing to provide in terms of a product or service they receive (Kotler and Armstrong, 2010). With the advent of numerous social media applications, the vendors can easily monitor the competitors pricing strategies as well as the consumers conversation to assess the value perception of a product. Thus, the pricing of a product impacts the consumers value perception (Lien, Wen, Huang, & Wu, 2015; Kortge, & Okonkwo, 1993). Also, Various studies demonstrates that the price fairness has a substantial effect on the consumers Perceived Service Quality (Basir, Modding, Kamase, & Hasan, 2015; Gounaris, 2003; Nguyen, Jeong, & Chung, 2018). The vendors having strong pricing strategies are able to recognize the impact of the products price on the Perceived Product Value and Perceived Service Quality (Tarsakoo, & Charoensukmongkol, 2019). Therefore, the hypothesis are formulated as stated below.

H3: Pricing Positively affects the Perceived Product Value

H7: Pricing has positive impact on the Perceived Service Quality

### **Trust**

Trust serves as the vital element of online business strategy as it spreads positive word of mouth and increases the Purchase Intention (Bauman, & Bachmann, 2017). Previous studies suggested that one of the critical factors of Perceived Product Value is trust (Cheung, Lam, & Lau, 2015; Chinomona, Okoumba, & Pooe, 2013; Ponte, Carvajal-Trujillo, & Escobar-Rodríguez, 2015). Also, Perceived Service Quality serves as the most crucial elements of trust while shopping through social media marketplace (Qalati, Vela, Li, Dakhan, Hong Thuy, & Merani, 2021).

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Numerous studies also concluded that trust has positive impact on the Perceived Service Quality (Cheung, Lam, & Lau, 2015; Chinomona, Okoumba, & Pooe, 2013; Qalati, Vela, Li, Dakhan, Hong Thuy, & Merani, 2021). Therefore, the hypothesis are formulated as follows.

H4: Trust has positive impact on the Perceived Product Value

H8: Trust Positively impact the Perceived Service Quality

### **Purchase Intention**

The Intention to purchase through social media can be referred as an act of purchasing goods using social media Applications. Most of the companies are concerned on the ways to determine the Purchase Intention of online consumer (Mejía-Trejo, 2021). Various studies shows that the Perceived Product Value has positive impact on the consumers Purchase Intention compared to other antecedents (Saleem, Ghafar, Ibrahim, Yousuf, & Ahmed, 2015; Rosillo-Díaz, Blanco-Encomienda, & Crespo-Almendros, 2019). However, from the review of literature it is also apparent that the Perceived Service Quality has a greater positive impact on the consumers Purchase Intention (Pérez, Abad, Carrillo, & Fernández, 2007; Huang, Yen, Liu, & Huang, 2014; Dedek, 2016). Thus, the hypothetical statements are formulated as follows:

H9: Perceived Product Value positively influences the Purchase Intention

H10: Perceived Service Quality positively influences the Purchase Intention

## **RESEARCH METHODOLOGY**

### **Measures Development**

The Questionnaire was divided into two sections. The first section includes questions to gather the socio-demographic and social media application usage details from the respondents. The subsequent section of the questionnaire includes items to measure the constructs used for the study. Based on the objective of the study, the items of the construct are adopted from the previous studies (Ganapathi, 2015; Victor, Thoppan, Fekete-Farkas, & Grabara, 2019; Sohaib, & Kang, 2015; Lin, 2007; Snoj, Korda, & Mumel, 2004). Some of the items used for the study was rephrased to suit the context of the study. All the items of this section were measured using a five-point Likert scale ranging from 1 as strongly agree to 5 as strongly disagree (Joshi, Kale, Chandel, & Pal, 2015).

### **Design and Sample**

To examine the proposed research model, the research instrument is designed and circulated online using various social media applications such as WhatsApp and Facebook to collect data from the respondents. The study uses non-Probability sampling method to choose the target respondents. The sample size is calculated based on the recommendation of minimum sample size (Bujang, Sa'at, & Bakar, 2017). The detailed information regarding the survey and the

direction to fill the questionnaire was explained in the description section of the Google Form. The Study has received 300 responses during the data collection process. Out of which, 288 responses were valid data for the study. The socio-demographic details of the respondents are presented in the Table 1. It is evident that more than 98 percentage of the respondents have at least one social media account and have purchased products using that social media application.

**Table 1**

Socio-demographic details of the respondents

Variable	Description	Frequency (N=288)	Percentage (%)
Gender	Male	125	43
	Female	163	57
Age	20-30 years	139	48
	31-40 years	47	16
	41-50 years	45	16
	50+ years	57	20
Marital status	Married	168	58
	Single	120	42
Education level	Under Graduate	97	34
	Post Graduate	179	62
	Others	12	4
Occupation	Government Employee	83	29
	Private Employee	71	25
	Self Employed	75	26
	Others	59	20
Do you use social media application?	Yes	282	98
	No	6	2
Have you purchased a product from social media applications?	Yes	284	99
	No	4	1

### DATA ANALYSIS

The data collected for the study was analyzed using the statistical tools such as Microsoft Excel, SPSS and AMOS. Since the constructs and items of the instruments were adopted from the previous studies, the study performs Confirmatory Factor Analysis to examine the Factor



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loadings (Green, Tonidandel, & Cortina, 2016). Then the Reliability and Validity of the instrument was tested (Knapp, & Mueller, 2010). To understand the model-fit, the fit indices and  $r^2$  value were considered for the study. Finally, the structural Equation Modelling (SEM) Analysis was performed to observe the relation between the Dependent and Independent variable and to test the hypothesis (Hox, & Bechger, 1998).

## **RESULTS**

### **Socio-Demographic Details**

The study includes 57% of Female respondents and 43% of Male Respondents. Considering the age factor, Majority of the respondents (48%) were in-between 20 to 30 years, followed by 20% of respondents with more than 50 years of age. The respondents in-between the age intervals of 31 to 40 years and 41 to 50 years of age were 16% correspondingly. Most of our respondents were married (58%) compared to unmarried respondents (42%). In terms of Educational Qualification, 62% of the respondents have had their post-graduation and 34 % of the respondents have had their Under-graduation. Nearly 29% of the respondent were employed under Government Sector, subsequently 26% of the respondents were self-employed and 25% of the respondents were employed under Private Sector. Considering the usage of social media applications, most of the respondents (98%) use social media applications and have previous purchase experience from the social media applications.

### **Assessment of the Measurement Model**

Initially the confirmatory factor analysis was done to examine the reliability of the Instrument used for the study. The Factor Loadings and the Mean values are exhibited in the table 2. The factor loadings of the construct have to be greater than 0.6 and the Mean values have to be greater than 2.5 to ensure the reliability of the Instrument used for the study (Gagne, & Hancock, 2006). From the table 2 it is evident that the factor loadings of all the items used for the study was greater than 0.6 and the mean values are higher than 2.5.



**Table 2**

Factor Loading and Mean values

<b>Variable</b>	<b>Items</b>	<b>Factor Loading</b>	<b>Mean</b>
Convenience	Detailed information is available while shopping through social media application	.846	3.37
	It is easy to choose and make comparison with other products while shopping through social media application	.823	3.55
	Finding right product using social media application is easy	.851	3.37
Time Saving	It takes less time in evaluating and selecting a product while shopping using social media application	.775	3.26
	Shopping through social media application takes less time to purchase	.737	3.26
	Shopping through social media application doesn't waste time	.828	3.24
Pricing	I think the price for a product is comparatively low in social media applications	.773	3.49
	The price paid for a product in social media application was ideal.	.891	3.33
Trust	The retailers in social media applications are trustworthy.	.784	3.02
	I believe the products will be delivered within the mentioned time span.	.745	3.39
Perceived Product Value	The products bought using social media applications are trustworthy.	.859	2.95
	The quality of the product bought under social media applications will be high.	.843	3.10
	The shelf-life of the product bought under social media applications will be more.	.714	3.00
Perceived Service Quality	I think the retailer in social media applications gives prompt service.	.801	3.27
	I believe the retailer in social media applications is always willing to help customers	.811	3.14

	I believe the retailer in social media application is never too busy to respond to customer requests.	.736	3.15
	The retailer in social media application provides the recommendation of products based on customers' preferences	.630	3.6
Purchase Intention from social media Marketplace	I am satisfied with my purchase decision	.795	3.54
	In the future, I would purchase products using social media applications.	.904	3.43
	Overall, I am happy with my purchase experience	.802	3.51

\*Factor Loading >0.6 Mean value >2.5

\*Note: Some of the items were removed since the factor loading values are less than 0.6.

To test the reliability of the instrument, the Cronbach's Alpha, Average Variance Extracted (AVE) and the Composite Reliability values has been examined and exhibited under table 3. The Cronbach's Alpha is used to determine the internal consistency of the scale and its value should range in-between 0.7 and 0.95 to get acceptable (Tavakol, & Dennick, 2011). The Cronbach's Alpha value of all the Constructs used for the study lies within the mentioned range of acceptance. The value of AVE and Composite Reliability should be higher than 0.5 and 0.8 respectively to be more reliable. The AVE and Composite Reliability values of all the study constructs were greater than the mentioned acceptable values. Thus, from the analysis, it is evident that the instrument used for the study is highly reliable.

**Table 3**

Reliability of the Instrument

Variable	Composite Reliability	AVE	Cronbach's Alpha
Convenience	0.88	0.7	0.84
Time saving	0.82	0.61	0.82
Pricing	0.82	0.7	0.8
Trust	0.81	0.59	0.73
Perceived Product Value	0.85	0.65	0.85
Perceived Service Quality	0.83	0.61	0.83
Purchase Intention from social media marketplace	0.87	0.7	0.88

\*Note: AVE denotes Average Variance Extracted

The Discriminant validity was tested by analysing the correlation matrix of all the constructs used for the study. The diagonal values represent the square root of the AVE value of that actual construct. In order to be valid, the square root of the AVE Values have to be greater than the corresponding off-diagonal values. The table 4 displays the correlation matrix of all the constructs and it is apparent that all the diagonal values are greater than the off-diagonal values. With reference to the above findings, it is inferred that the measures developed showed an adequate level of Reliability and Validity.

**Table 4**

Validity of Measures

	Convenience	Time saving	Pricing	Trust	Perceived Product Value	Perceived Service Quality	Purchase Intention from social media marketplace
Convenience	<b>0.837</b>						
Time saving	.778	<b>0.781</b>					
Pricing	.789	.710	<b>0.837</b>				
Trust	.625	.625	.671	<b>0.768</b>			
Perceived Product Value	.439	.545	.586	.722	<b>0.806</b>		
Perceived Service Quality	.586	.578	.647	.718	.745	<b>0.781</b>	
Purchase Intention from social media marketplace	.750	.643	.681	.783	.664	.693	<b>0.837</b>

\*Note: The square root of AVE constitutes the diagonal values. While the off-diagonal elements are Correlation Co-efficient.

### SEM Analysis

The outcome of the model fit indices was CFI = 0.91, GFI=0.931, AGFI=0.853, NFI=0.914, TLI= 0.914, CMIN/DF= 3.120 and RMSEA= 0.062. Additionally, the co-efficient of R<sup>2</sup> values of the constructs Perceived Product Value, Perceived Service Quality and Purchase Intention

from social media marketplace were 0.851, 0.845 and 0.804 respectively. All the fit indices disclosed an excellent model fit (Smith, & McMillan, 2001). The result of the hypothesis testing is presented in the table 5. The relationship between Convenience and Perceived Product Value was significant with  $b=0.449$  and  $p<0.05$ . Therefore, the first hypothesis was supported. The Second hypothesis between the constructs Time saving and Perceived Product Value was considered insignificant as  $b=0.037$  and  $p>0.05$ . The effect of Pricing on Perceived Product Value exhibits a significant relationship with  $b= 0.268$  and  $p<0.05$ . Also, the impact of trust on Perceived Product Value shows a greater positive association with  $b= 0.123$  and  $p<0.01$ . Therefore, both the third and fourth hypothesis were supported. The influence of both the convenience and Time saving on the Perceived Service Quality were found to be insignificant with  $b=0.117$  and  $b=0.143$  respectively at  $p>0.05$ . Hence the fifth and sixth hypothesis were found to be statistically insignificant. Next, the relationship between pricing and Perceived Service Quality was observed to be significant with  $b=0.189$  and  $p<0.05$ . Thus, accepting the seventh hypothesis. The eighth hypothesis was supported with greater significant association ( $b=0.803$  and  $p< 0.01$ ) between the constructs pricing and Perceived Service Quality. From the table it is observed that there is an insignificant relationship between Perceived Product Value and Purchase Intention from the social media marketplace, since  $b=0.132$  and  $p>0.05$ . Thus, rejecting the ninth hypothesis. Finally, the tenth hypothesis showed a significant relationship between the constructs Perceived Service Quality and Purchase Intention from social media marketplace with  $b=0.997$  and  $p<0.01$ . The result supported the tenth hypothesis.

**Table 5**

## Hypothesis Testing

Hypothesis	Path	coeff	P	Hypothesis
Hypothesis 1	convenience- Perceived Product Value	0.449	0.003*	Supported
Hypothesis 2	Time saving- Perceived Product Value	0.037	0.81	Not Supported
Hypothesis 3	Pricing - Perceived Product Value	0.268	0.029*	Supported
Hypothesis 4	Trust - Perceived Product Value	0.123	***	Supported
Hypothesis 5	convenience- Perceived Service Quality	0.117	0.347	Not Supported
Hypothesis 6	Time saving- Perceived Service Quality	0.143	0.295	Not Supported
Hypothesis 7	Pricing - Perceived Service Quality	0.189	0.047*	Supported

Hypothesis 8	Trust- Perceived Service Quality	0.803	***	Supported
Hypothesis 9	Perceived Product Value - Purchase Intention from social media marketplace	0.132	0.265	Not Supported
Hypothesis 10	Perceived Service Quality - Purchase Intention from social media marketplace.	0.997	***	Supported

Note: \*\*\* -  $P < 0.01$ , \* -  $P < 0.05$ . Model Fit Indices: CFI = 0.91 (Ideal > 0.9), GFI = 0.931 (Ideal > 0.9), AGFI = 0.853 (Ideal > 0.85), NFI = 0.914 (Ideal > 0.9), TLI = 0.914 (Ideal > 0.9), CMIN/DF = 3.120 (Ideal < 5) and RMSEA = 0.062 (Ideal < 0.08).

## DISCUSSION

The study predicts consumers Purchase Intention associated with the social media marketplace. The study categorizes four constructs such as Convenience, Time Saving, Pricing and Trust that affects the Perceived Product Value and Perceived Service Quality which further impacts the consumers Purchase Intention. From the analysis we can imply that the convenience of using social media applications positively influences the product value perceived by the consumer. Whereas the Perceived Service Quality was not influenced by the convenience factor of using social media applications. Thus, the result supported the findings of Pham et al., (2018) but it does not support the verdicts of Kaura et al., (2015). The next construct is related to the time saving nature of the social media marketplace. Based on the review of literature, shopping made using social media marketplace endorses time saving aspect of the consumers. On the contradictory, the result proved that the time saving nature of social media marketplace has no impact on the consumers Perceived Product Value and the Perceived Service Quality. Therefore, the results of both Alreck et al., (2009) and Kim et al., (2022) were not supported by the study. The construct pricing is associated with the pricing strategies for various products in the social media marketplace. The pricing determines the Perceived Product Value and Perceived Service Quality as stated by Kortge and Okonkwo (1993) and Basir et al., (2015), which is also apparent based on the analysis of the study. Therefore, these findings empirically support and stretches the previous literature by finding that pricing builds significant positive impact on both Perceived Product Value and Perceived Service Quality. The construct trust was found to provide a dominant positive effect on both the Perceived Product Value and Perceived Service Quality. These findings infer that trust was the strong driver of the people doing their shopping from the social media marketplace. Thus, the study goes in hand with the statements made by Cheung et al., (2015) and Qalati et al., (2021). In line with the research made by Pérez et al., (2007), the study confirms that the Perceived Service Quality has a much higher positive impact on the Purchase Intention from the social media marketplace. On the other hand, the study illustrates

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that the Perceived Product Value does not possess any influence on the Purchase Intention from the social media marketplace, opposing the findings of Saleem et al., (2015).

### **Theoretical Implications**

Though there were numerous studies based on the consumers' online Purchase Intention, only a very few studies concentrated on the consumers' Purchase Intention on the social media marketplace. The current study adds value to the literatures based on the social media marketplace by finding the significant drivers of Perceived Product Value and Perceived Service Quality, and the result discloses their effect on the consumers Purchase Intention from the social media marketplace. Another contribution of the study is the discloser of Trust and pricing as the strong predecessor of the Purchase Intention from the social media marketplace.

### **Practical Implications**

India accounts for more than 530 million social media users and most of them had previous purchase experience from the social media marketplace (Statista, 2021). Based on the discussion it is found that the vendors of the social media marketplace have to focus on all the mentioned constructs such as Convenience, Time saving, Perceived Product Value and Perceived Service Quality in order to be more competitive in the social media marketplace. Subsequently the vendors should develop contextual marketing and offers based on the consumers preferences to involve the customers in impulsive buying. From the result it is apparent that the pricing and trust are the strong drivers of the social media marketplace. Therefore, the vendors should enhance these factors to improve their competitive edge.

### **FUTURE RESEARCH DIRECTIONS**

Numerous constructs presented in the previous literatures in order to examine the Purchase Intention. The current study involves only six constructs namely, Convenience, Time saving, Pricing, Trust, Perceived Product Value and Perceived Service Quality to assess the Purchase Intention from the social media marketplace. Whereas, the future researchers can use other constructs to evaluate the consumers Purchase Intention from the social media marketplace. The study does not focus on a particular social media application, while the future researchers can target a particular social media marketplace and examine the Purchase Intention from that application. The data was collected only by circulating the questionnaire online, so the study is not limited to any demographic region. Future works may imitate the study by choosing any geographical region.

### **CONCLUSION**

Prompted from the upsurge in the usage of social media marketplace, the study aims to explore the Purchase Intention of the consumers from the social media marketplace. The study gathered

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288 valid responses by circulating the questionnaire online using google forms. Non-probabilistic sampling was used to select the target respondents. The instrument was then tested for its reliability and validity. Following which the SEM analysis was performed to test the relationship between the constructs used for the study and the Purchase Intention from the social media marketplace. The result proved that the Convenience, Pricing and Trust have a strong impact on the Perceived Product Value. Whereas, on the contradictory the Time Saving has negative impact on the Perceived Product Value. Meanwhile, pricing and trust also have a robust influence on the Perceived Service Quality. The convenience and Time saving have proved negative impact on the Perceived Service Quality. Finally, considering the Purchase Intention from the social media marketplace, Perceived Service Quality has showed greater influence apart from the Perceived Product Value. Hence the vendors are suggested to develop strategies to influence the Purchase Intention of the consumer from the social media marketplace. Finally, the future research directions were provided to enhance the study. Moreover, the study also presents the theoretical implications, practical implications and future research directions were provided so that both researchers and Practitioners explore innovative ways to promote the Purchase Intention of the consumers from the social media marketplace.

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## CORPORATE FINANCE

### CORPORATE FINANCE IN THE BANKING INDUSTRY

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#### ABSTRACT

This research-oriented abstract provides valuable insights into corporate finance in the banking industry, encompassing key aspects, emerging trends, and significant challenges. Recent research has focused on strategic decision-making processes, risk management practices, and capital structure determinants, highlighting the importance of robust finance practices for banks' competitiveness and resilience in a dynamic market. Key research areas include the risk-return trade-off, examining credit, market, and liquidity risks, and their impact on financial performance. Additionally, regulatory frameworks' effectiveness in ensuring stability and promoting sound governance within banks has been investigated, along with the intersection of technology and finance. The integration of digital transformation, blockchain, and AI holds the potential to streamline processes and enhance risk assessment. This abstract serves as a foundation for in-depth analysis and understanding of corporate finance intricacies in the ever-evolving banking landscape.

**Keywords** Corporate Finance, Asset Quality, Equity Value, Enterprise Value, Robust Mortgage

#### INTRODUCTION

Corporate finance in the simplest words is the field of finance that broadly focuses on managing financial resources actively within an organisation. It refers to Corporate finance for a bank refers to the specific financial management activities and decision-making processes that banks have to undertake to ensure long-term sustainability, profitability and stability.

This mainly includes:

- Managing a Bank's Capital Structure
- Calculating WACC and deciding if a Bank should be more levered or less levered
- Strategical and goal-based Investment decisions
- Evaluating all kinds of Risk exposure from various channels

Corporate finance services, including loan syndication, venture capital, and merger and acquisition advisory, have significantly impacted the banking industry.

#### RESEARCH OBJECTIVE

1. To bring about a clear influence of Corporate Finance on the banking industry
2. To study the underlying effect of the Asset quality of Banks on their financial performances

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### **Corporate Decisions, Enterprise Worth and Equity Value**

A bank's profitability and overall value can be notably enhanced by a well-considered investment strategy. This strategy encompasses a wide array of strategies, including investments in diverse capital instruments, loan portfolios, and asset acquisitions. Taking into account a holistic view, financial decisions have always had a significant impact on the banking sector's profitability and sustainability and the equity value of companies. Smart decisions play a very essential and important role in shaping the landscape of the banking industry by having a substantial effect on a bank's value and equity. Investing in different financial instruments, acquiring loan portfolios, and purchasing assets are strategic choices that greatly boost a bank's profitability and overall value.

### **Artificial Intelligence and Blockchain in Assessing Risk**

AI, blockchain generation, and digital transformation are revolutionizing corporate finance in the banking enterprise. AI-powered algorithms are reworking risk assessment and economic forecasting, allowing extra correct and green selection-making. Blockchain technology complements security, transparency, and performance in transactions, reducing fraud and streamlining approaches such as go-border payments. Digital transformation, together with the mixing of online systems and mobile banking, improves customer experiences and operational performance. The goal is to analyse the possibilities and demanding situations of adopting technology in corporate finance within the banking industry.

We can understand the real-world programs of AI, blockchain, and digital transformation in numerous regions of company finance, consisting of credit danger evaluation, fraud detection, regulatory compliance, and customized customer offerings. It analyzes case studies from main banks and economic institutions, offering insights into the implementation techniques, and limitations of this technology. AI, blockchain, and virtual transformation reshape traditional banking practices, revolutionize risk management, improve decision-making approaches, and drive consumer-centric innovation.

AI, blockchain technology, and digital transformation have tremendous transformative potential in corporate finance inside the banking industry. The adoption of those technologies allows banks to carry out noteworthy credit analysis, improve selection-making performance, ensure regulatory compliance, and provide personalized purchaser experiences.

### **Asset Quality**

Asset quality is critical in company finance in the banking industry as it directly influences the financial health, balance and profitability of banks. The phrase "asset type" refers back to the employer and management of the financial institution's loan portfolio and different belongings.



High-high-quality belongings have low-danger loans and investments which are in all likelihood to be repaid to generate steady profits while terrible-high-quality assets have high-danger loans, non-acting belongings and investments without any benefit.

For many motives, banks want to preserve high and best asset Quality. For starters, it has a right away impact on a financial institution's capacity to generate sales and profitability. High-great assets quality facilitate consistent returns, imparting steady income for the fund.

Secondly, asset quality is intently tied to a bank's risk profile and capital adequacy. High-best quality carry decrease credit and default hazard, reducing the possibility of loan defaults and capacity losses. This enhances the bank's capital adequacy ratio, ensuring it meets regulatory requirements and safeguards in opposition to financial misery. A sturdy capital base allows banks to withstand financial downturns and unexpected losses, selling financial balance in the banking region.

Thirdly, asset quality greatly affects a bank's borrowing expenses and access to capital markets. Banks with higher assets are perceived as less risky by way of investors and lenders, allowing them to borrow at more favourable charges of interest. Additionally, banks with robust asset first-rate find it less difficult to elevate capital via fairness services or debt issuance to aid their growth and growth plans.

Moreover, excessive asset health is vital for fostering client acceptance as true and with self-belief. Customers opt to deal with banks that show off a robust mortgage portfolio and popularity for sound lending practices. This belief results in multiplied client deposits, in addition to bolstering the financial institution's investment base and liquidity.

Chart No. 1.1 Total Banking sector Assets in India

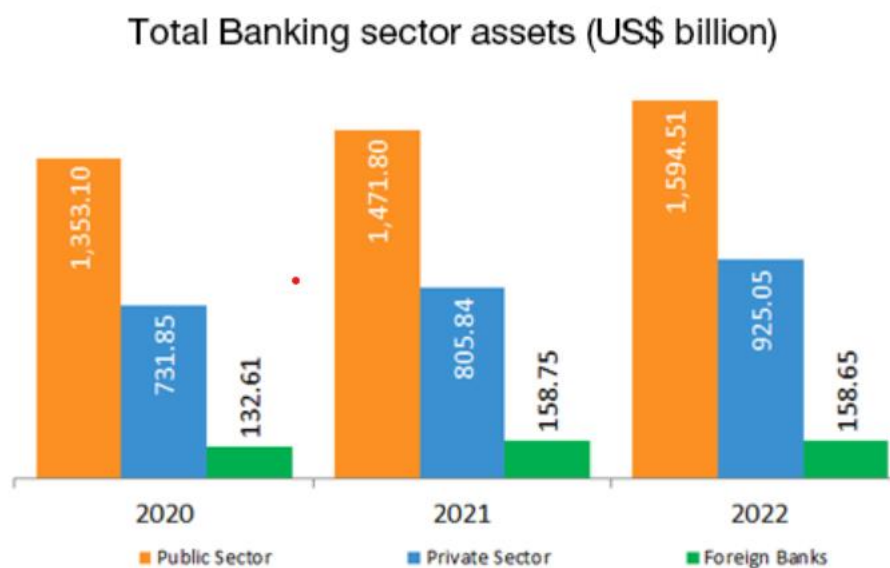


Chart No. 1.2 Aggregate deposit and credit growth at Indian commercial banks (%)



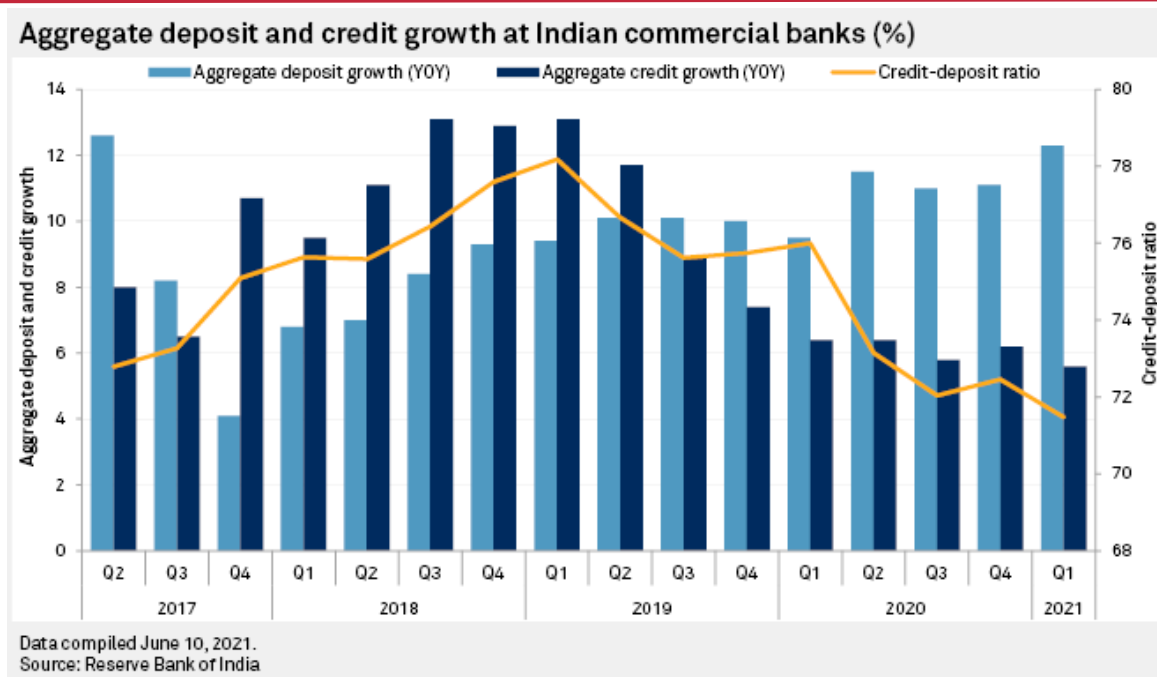
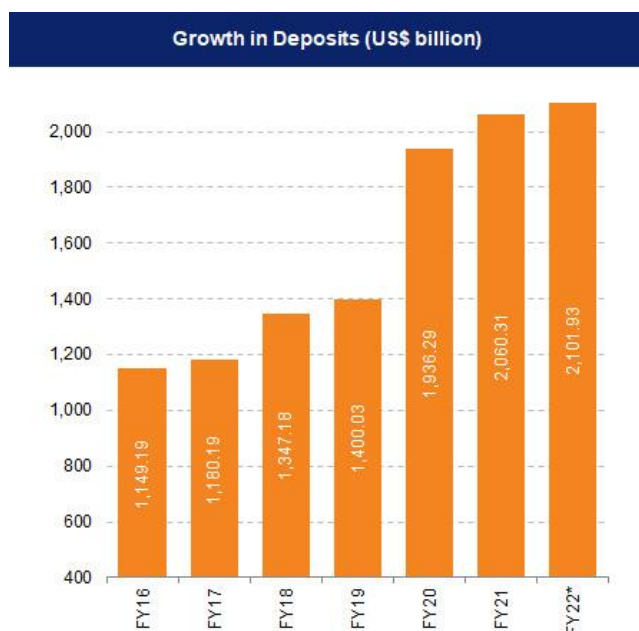


Chart No. 1.3 Growth in Indian Deposits Year on Year



**CONCLUSION**

The value of deposits in India increased 13 per cent year-on-year in the fortnight ending June 30th 2023. Corporate finance as a preview of the banking industry holds a vital position in shaping the financial health and balance of banks. The strategic choices made inside this area, together with investment selections, appropriate management practices, and capital structure determinants, at once impact a bank's competitiveness and resilience in the ever-evolving marketplace. As banks navigate the complexities of the economic panorama, the danger-go back exchange-off becomes a pivotal consideration, with credit, marketplace, and liquidity dangers drastically influencing their financial performance.

Additionally, regulatory frameworks play a vital role in ensuring sure stabilised environment, promoting sound governance, and safeguarding the pastimes of stakeholders. Understanding and adhering to evolving regulatory measures, such as capital adequacy ratios and stress checking out methodologies, are critical in making knowledgeable corporate finance selections.

Moreover, the intersection of generation and finance affords each challenges and possibilities for the banking industry. Embracing virtual transformation, blockchain, and artificial intelligence can streamline tactics, beautify chance evaluation, and enhance choice-making efficiency. By harnessing the strength of technological improvements, banks can optimize their financial control practices, paving the manner for a greater resilient and customer-centric banking area.

Corporate finance serves as the backbone of any industry, which includes banking and way past it. It encompasses vital economic selections that trigger an industry's growth, profitability, and long-time period sustainability. Effective corporate finance practices, which include funding techniques, risk management, and capital allocation, underpin an industry's success and resilience in dynamic marketplace surroundings. This strategic method ensures that organizations can optimize their monetary assets, seize opportunities, and navigate challenges with confidence.

Furthermore, asset quality emerges as an important thing in determining a bank's financial position and risk tolerance and overall performance. High-great asset classes offer a reliable earnings movement, ensuring steady profitability.

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- <https://www.rbi.org.in/>

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## GREEN BANKING: INNOVATIVE FINANCE TO ACCELERATE THE EVOLUTION OF CLEAN ENERGY

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### ABSTRACT

The loss of greenery is something we very much miss in the current globalization scenario as we move through the 21st century. Since everyone in contemporary society is growing more and more concerned and anxious about the environment, business organizations and businesses have begun changing the way they operate in an effort to add as much greenery as they can. Green banking combines technological advancements, operational improvements, and shifting customer behaviour in the banking industry. It entails encouraging environmentally beneficial behaviours. This can take many different forms, such as using internet banking instead of branch banking, paying bills electronically instead of by mail, opening money market and CD accounts with online banks rather than big multi-branch banks, or locating the neighborhood bank that is most convenient for you.

**Key Words** *advancements, electronically, globalization, greenery, neighbourhood*

### INTRODUCTION

A green bank, like a regular bank, aims to preserve and protect natural resources by taking into account all social and environmental issues. Promoting eco-friendly behavior and reducing the bank's carbon footprint are both part of green banking. Sustainable banking and ethical banking are other names for it.

Gladwin and others (1995) assert that sustainable development necessitates the integration of the three development pillars of social, environmental, and economic development.

Green banking is a recent development in the financial industry. For the advancement of sustainable development as a whole, banks' role in financing economic and developmental activities is crucial. Banks use the term "green banking" to refer to their increased environmental responsibility. "Green banking" is the process of developing inclusive banking policies that guarantee sustainable economic development.

By giving priority to lending to businesses that have already gone green or are making an effort to do so and by encouraging investments that are friendly to the environment, "green banking"

aims to improve the environment. Green banking combines technological advancements, operational enhancements, and shifting customer behavior in the banking sector. It involves empowering activities that are really great for the climate. Two examples of this are switching over to online banking and paying bills.

For instance, an investment in a company that produces a significant amount of pollution and bears the costs to society as a whole, for instance, typically has a higher rate of return than an investment in a factory that employs expensive pollution control methods, which typically has a lower rate of return. Banks will still have to choose which of the two to lend to first, even if everyone agrees that the second example is a better long-term investment.

### **Ecological Suitability**

The National Environmental Policy Act (NEPA, 2014), whose objectives are to propel overall government assistance, keep up with useful agreement among man and nature, and guarantee the monetary and social prosperity of both current and people in the future, brought about the possibility of natural supportability in the US in 1969.

#### **1. Green banking**

An ethical bank, also known as a traditional bank, is similar to traditional banking in that it takes into account all aspects of society and the environment. Ethical banking's initial focus was environmental protection. These banks are governed by the same authorities as regular banks and operate in a manner that is analogous to that of regular banks in that they also work to protect the environment. The importance that green banks place on environmental considerations is just one of many differences between green banking and traditional banking.

This takes on various shapes.

1. Switching to online banking from branch banking.
2. Making online bill payments rather than sending checks.
3. Opening accounts with smaller online banks as opposed to major chains of banks
4. Locating the local bank that is promoting the greenest projects in the region.

#### **2. Green Banking Products**



### **Green Credit Cards**

They are issued by a banking institution that supports sustainable projects and green energy but not fossil fuels. Amalgamated Bank and TCM Bank (which issues the Green America Visa) are two examples of this strategy.

### **Green Savings Accounts**

A green savings account means your savings are only used to fund our green lending products if you have a green savings account. This is not like our usual savings accounts, which pay for a variety of lending activities.

## **LITERATURE REVIEW**

Verma (2012) in his study explained the evolution of green banking in India, and highlight that now banks are incorporating green banking practices in CSR as a main activity. However, his study concluded that only few banks in India adopted green banking and there is lack of awareness among the bank staff and customers.

Chaurasia (2014), in his paper 'Green Banking practices in India Banks' highlighted the benefits, confronting challenges, strategic aspects of green banking and status of Indian banks regarding Green Banking adoption. He found that there has not been much initiative in this regard by the banks in India. Investigator suggested that bank should go green and play a proactive role to take ecological aspects as part of their lending principle, which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems.

## **STUDY OBJECTIVES**

To research environmental risk management and find new eco-friendly financial product options.

- To determine the various Green Banking Approach adoption techniques.
- To comprehend the idea behind green finance.
- To research the problems and difficulties encountered in the introduction of green banking.
- To figure out the green banking industry's sustainable development in India.

## **METHODOLOGY**

The primary data, such as surveys from Karnataka (with 36 respondents).Secondary sources have been explored, including books, articles, journals, newspapers, web browsing, etc.

### **History**

State and national Green Banks from Connecticut, Australia, Malaysia, New York, Japan, and the United Kingdom, as well as the nonprofit organizations Natural Resources Defense Council

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(NRDC) and the Coalition for Green Capital, launched it at the 2015 COP21 conference in Paris (CGC).

Green was only the color of money for banks in India up to the turn of the twentieth century. The Indian banking industry took the lead in developing an environmentally friendly banking system with the introduction of automated teller machines (ATMs) in 2001.

2009 saw the debut implementation of green banking in the state of Florida. The largest commercial bank in India, SBI (state bank of India), took the initiative to set better standards for sustainability and made the first steps toward "green banking." Initiative

### **What is Green Banking?**

It's not a different bank, Green Banking. Green banking refers to guaranteeing eco-friendly processes in the banking industry and lowering both internal and external carbon footprints. In general, the banking sector is not thought to be a polluting one. However, it has an effect on the environment by increasing energy use (lighting, air conditioning), as well as paper use. Therefore, there are two components to green banking.

#### **Importance**

1. Financing operations
2. Credit augmentation
3. Securitization
4. Co-investment

#### **Benefits of Green Banking in India**

- Paperless banking reduces paperwork.
- Expanding Money managers
- Consciousness of the Climate
- Loans with fairly low interest rates
- Environmental Lending Standards

#### **Other advantages**

- Increasing the standard of service
- Automating manual procedures
- Keeping and attracting employees
- Increasing profits and sales
- Cutting the cycle time
- Increase customer loyalty

- Reduce costs associated with serving and selling
- Decrease how much desk work

### **Network of Green Bank**

A worldwide investment pack with an inflection on supporting decisions for sensible energy, the Green Bank Association, State and public Green Banks from Connecticut, Australia, Malaysia, New York, Japan, and the Unified Realm, as well as the nonprofit organizations Natural Resources Defense Council (NRDC) and the Coalition for Green Capital launched it at the 2015 COP21 conference in Paris (CGC).

### **Green banking in India**

The following list includes the various Indian banks that offer their clients green banking services

**State Bank of India:** SBI has carried out a green financial strategy and introduced breeze turbines in Gujarat, Maharashtra, and Tamil Nadu to deliver 15 MW of power. This is the first bank in India to support renewable energy projects and engage in green banking.

**Punjab National Bank:** They had made a number of efforts to cut down on emissions and energy use.

**Bank of Baroda:** They had executed various green financial measures, including subsidizing a business venture. To obtain carbon credits, Sway favors harmless to the ecosystem green drives like sunlight based, biomass, and wind power plants.

**Canara Bank:** It has implemented environmentally friendly practices like mobile banking, online banking, telebanking, and solar-powered biometric processes as part of its green banking program.

**ICICI Bank Ltd.:** ICICI bank launched the "Go Green" campaign, which entails actions like green product/offering creation, green engagement, and green client interaction.

**HDFC Bank Ltd.:** HDFC Bank is implementing a number of strategies to lessen their carbon footprints in waste management, paper use, and energy efficiency.

**Kotak Mahindra Bank** As part of the "Think Green" campaign, it had carried out a number of different actions. Among other efforts to reduce paper consumption, the company had partnered with "Grow- Trees.com" to plant one sapling for each customer-signed paper statement. e-statements made by customers on their behalf.

**YES Bank:** It has projects in the fields of clean technologies and alternative energy in its portfolio.

**IDBI:** IDBI Bank offers its clients a scope of administrations in the space of Clean Development Mechanisms (CDM).

### **Techniques for Green Banking**

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- Indian banks might decide to involve green banking as a practical plan of action. Banks either need to use some of the following strategies or they don't really affect how they do banking.

- Carbon Credit Business (CBS):
- Green Banking Financial Products:
- Paperless Banking:
- Consciousness of Energy
- System of public transit:
- Social Responsibility Services:
- Gift Card.

### **Online banking services**

- PPF transfer
- Setting up Standing Instruction
- E-Tax Payment
- E-ticketing
- Bill Payments
- Visa Money Transfer
- Demat Enquiry
- Online Application for IPO.

□ Vishwa Yatra Card: State Bank Vishwa Yatra Foreign Travel Card' is a prepaid Foreign Currency Card which travelers going abroad are guaranteed to find useful. It is a Chip based Card which stores encrypted and confidential information.State Bank Vishwa Yatra Foreign Travel Card is available in Eight Foreign Currencies viz.US Dollars (USD), Pound Sterling (GBP), Euro (EUR), Japanese Yen (YEN),Canadian Dollar (CAD), Australian Dollar (AUD), Saudi Riyal (SAR) and Singapore Dollar(SGD).

□ Green Channel Counter: The Bank had launched 'Green Channel Counter'(GCC) facility on State Bank Day (01.07.2010), at 57 select branches of the Bank spread across the country. This was an innovative step taken by the Bank towards changing the traditional way of paper based banking in a limited way, to card based Green Banking focusing on reduction in paper usage as well as saving transaction time. This is a pioneering concept which would save both paper and time resources.

### **Publication dates of green banking adopted in Indian banks**



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<b>Green Banking implementation year</b>	<b>Names of the banks operating in India</b>
1996	Union Bank Of India
2003	Citi Group INC, HSBC, ING Vyasa, RBS, Royal bank Of Canada, Syndicate Bank, Statndard Chartered
2005	Yes bank, Corporation Bank
2006	Bank Of America, JP Morgan
2007	ICICI, OBC, SBI
2008	Bank Of Baroda, Karnataka Bank, Industrial Bank, Dena Bank
2009	HDFC, Indian Overseas, Indusland Bank, PNB, ABN Amro , Karur Vyasa , Andhra bank
2010	Axis bank, Kotak Mahndra, South Indian Bank
2011	Canara Bank, IDBI, EXIM
2013	IDFC

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**SWAC ANALYSIS**

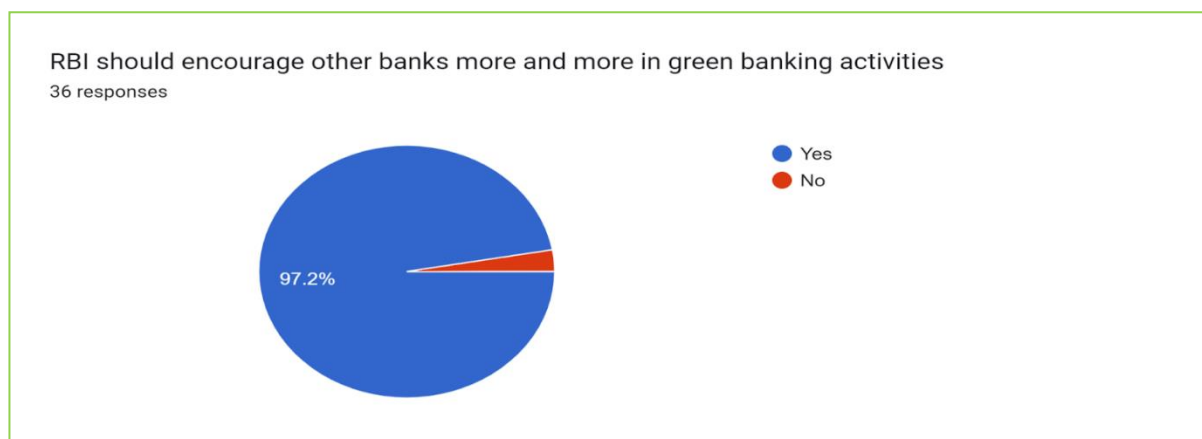
Strengths	Weakness	Opportunities	Challenges
<ul style="list-style-type: none"> <li>• Ecological Support</li> <li>• Boosts kindness</li> <li>• Soaring Rate Of Return</li> </ul>	<ul style="list-style-type: none"> <li>• Less Perception</li> <li>• Customers’ Panic Of Veiled Costs</li> <li>• Methodological Area</li> <li>• A Smaller Amount Of Government Hold Up</li> </ul>	<ul style="list-style-type: none"> <li>• Enlarged Returns Sources</li> <li>• Condensed complete costs</li> <li>• Superior increase Rate</li> </ul>	<ul style="list-style-type: none"> <li>• Towering Preliminary Cost</li> <li>• High Promote Risks</li> <li>• Mysterious Market Environment</li> <li>• Current Financial Troubles</li> </ul>

**Green Finance**

The name given to banks that give money to projects that are good for the environment, financially supporting green businesses is the main objective. It aims to reduce outside byproducts of fossil fuels and contamination through innovation. The lender encourages industries with low carbon footprints and Conscious use of resources. Financing environmentally friendly business ventures and energy-efficient industries like landfills, biogas plants, renewable energy projects, and hybrid vehicle projects are given top priority.

**DATA ANALYSIS AND FINDINGS**

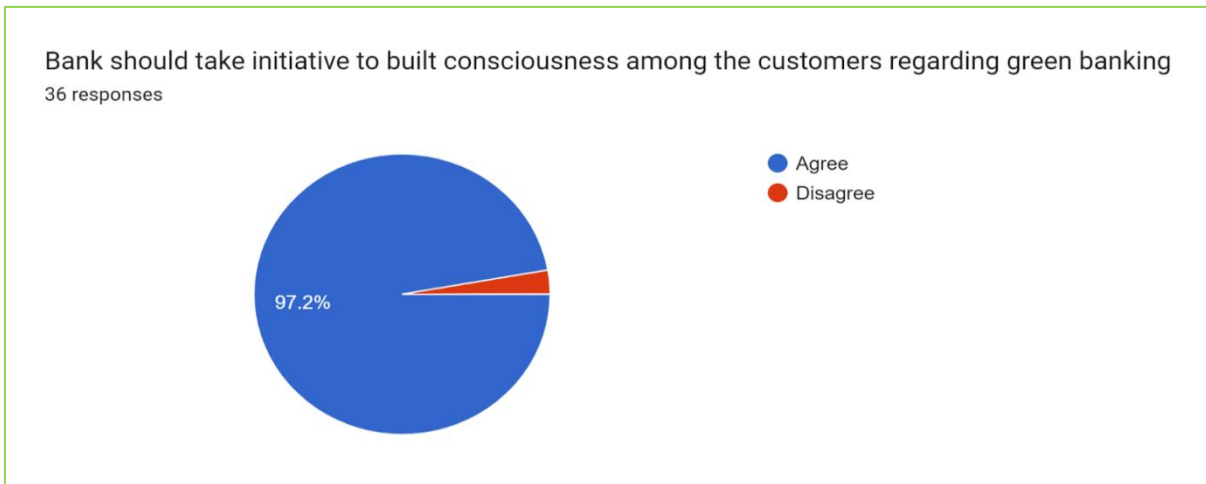
**Graph-1**



97.2% opted yes

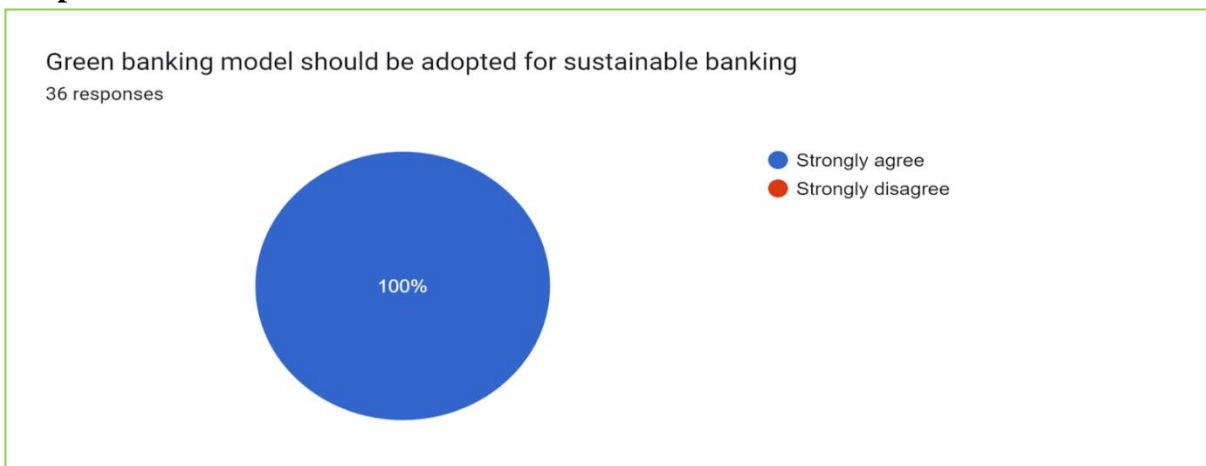
2.8% opted No

**Graph-2**



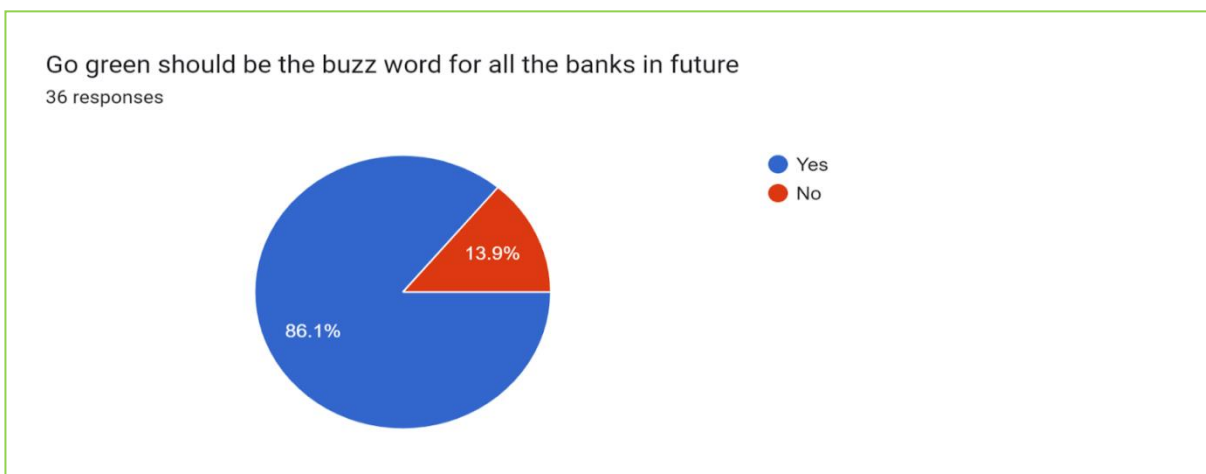
97.2% opted agree  
2.8% opted disagree

**Graph-3**



100% opted strongly agree

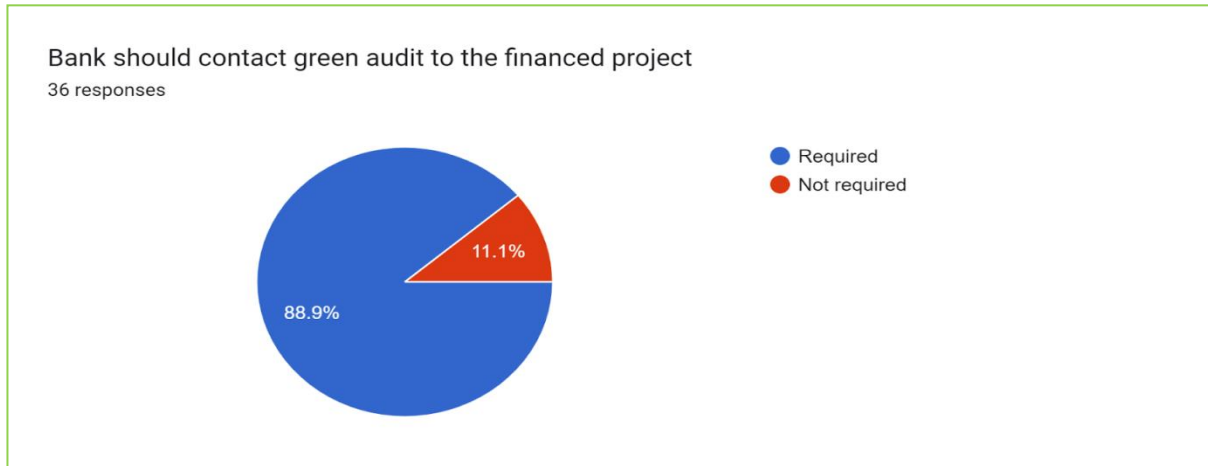
**Graph-4**



86.1% opted yes

13.9% opted No

**Graph-5**

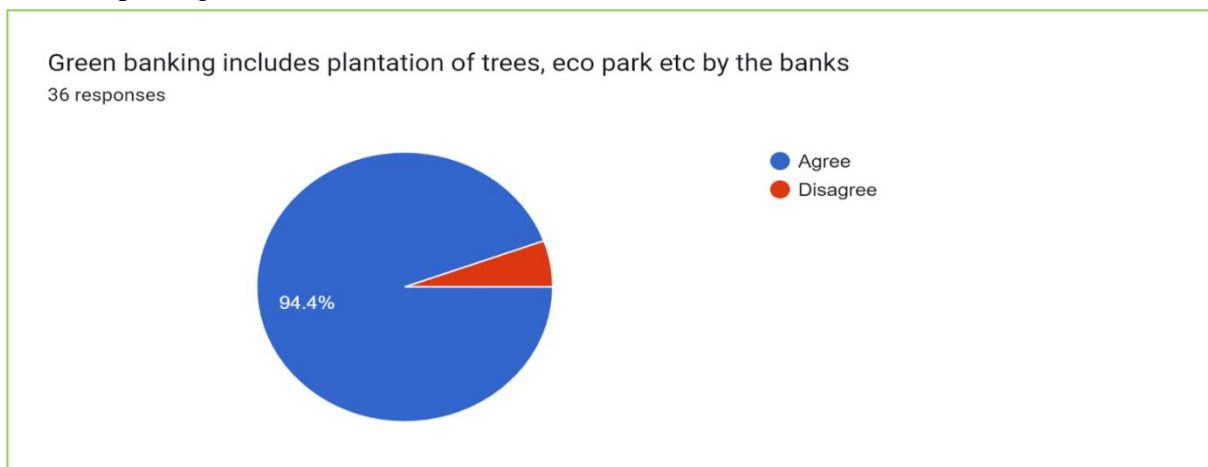


97.2% opted as required

2.8% opted as not required

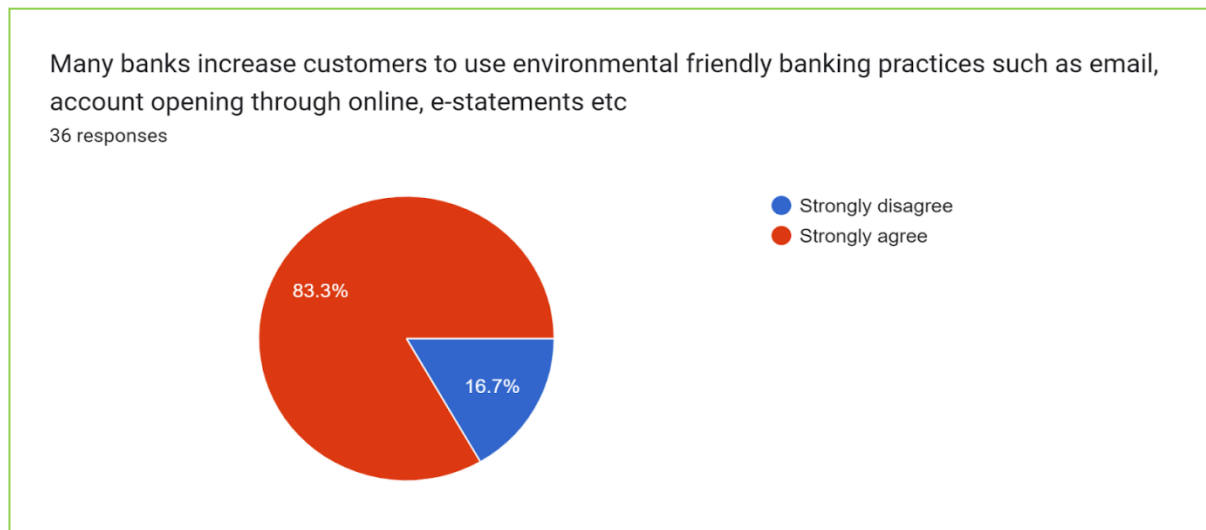
**Graph-6**

94.4% opted agree



5.6% opted disagree

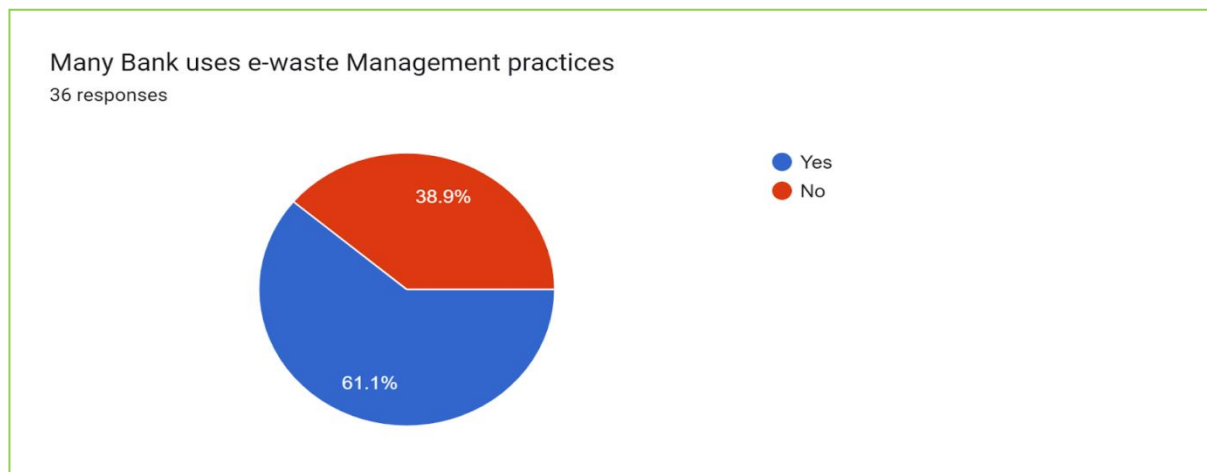
**Graph-7**



83.3% opted strongly agree

16.7% opted strongly disagree

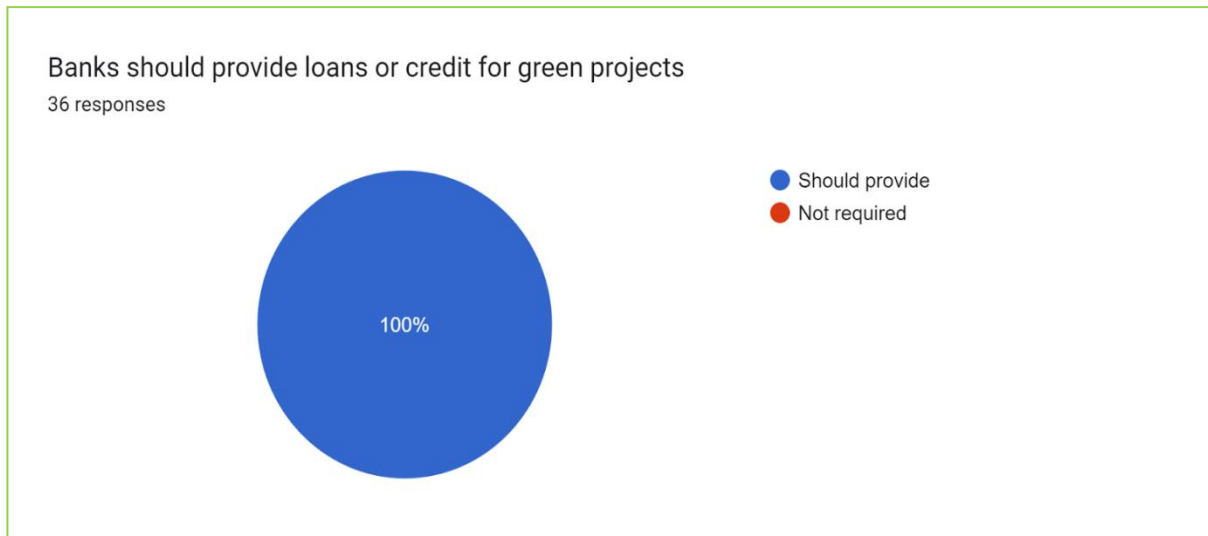
**Graph-8**



61.1% opted yes

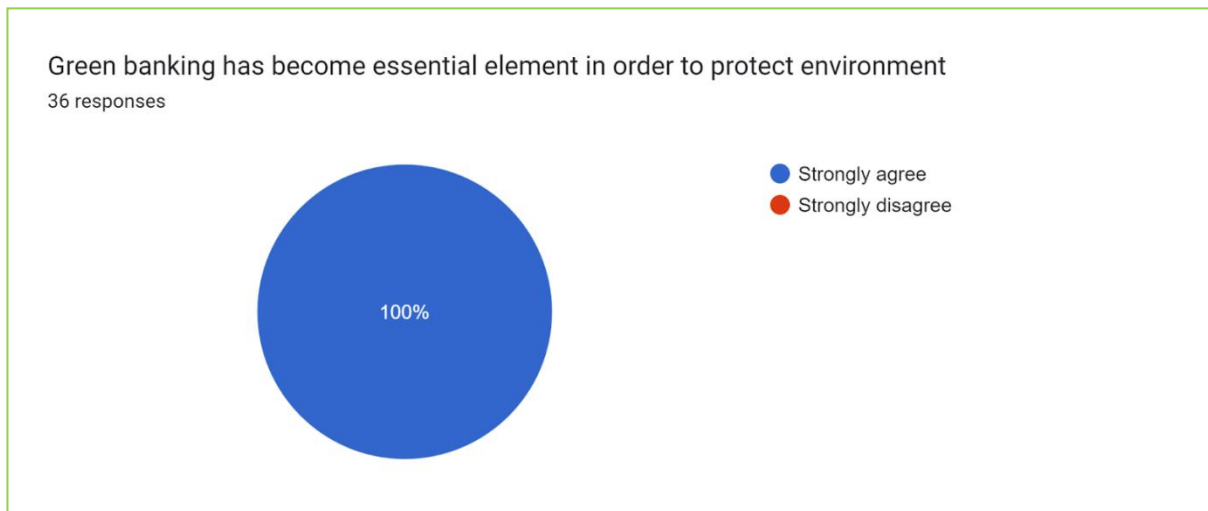
39.9% opted no

**Graph-9**



100% opted should provide loans for green projects

**Graph-10**



100% opted strongly agree

**FINDINGS**

The report says that many customers are unaware of all the activities and benefits of green banking.

- 1) The use of automated banking services is ineffective.

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- 2) According to the study, many people are fearful of security and lack confidence when managing situations.
  - 3) Green banking relies on online or electronic transactions for processing in order to minimize paper work and provide green credit cards and green mortgages. Less paperwork equals less tree-cutting.
  - 4) It also entails educating banking professionals about social and environmental responsibility so they can adopt environmentally friendly business practices.
  - 5) The idea of "green banking" is a proactive, shrewd way of thinking with an eye on long-term sustainability.

### **Measures to Promote Green Banking**

- Use the bank's intranet and external websites to spread information.
- Partake in occasions and utilize the media to convey.
- Lay out outlets to publicize green organizations.
- Using public transportation and conserving energy to reduce one's carbon footprint.
- Utilize online learning platforms to disseminate information.

### **SUGGESTIONS**

- Make use of their website to inform individuals about green banking.
- Promoting a wide range of electronic banking options.
- Increasing consumer awareness through the media.
- Conserving energy and paper to reduce carbon emissions.
- Offering eco-friendly incentives as a reward to customers.

### **CONCLUSION**

The term "green banking" describes the steps taken by banks to promote environmentally responsible investing.

The idea of "green banking" is a proactive and astute approach to future sustainability. It is crucial that the banks take the initiative to quicken the pace of the economy's expansion. The climate is always changing, which puts banks in a fierce competitive situation on the worldwide market. The business model, strategy, and formulation for products and services, operations, and financing activities of banks need to incorporate morality of sustainability and responsibility in order to become stronger. Banks can recoup their investment losses by including environmental considerations into their lending activities, while also encouraging environmentally responsible business practices in polluting industries.

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