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Chapter - 1

A Study on Non-Performing Assets Management at Primary Co-operative Agriculture and Rural Development Bank

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Abstract

One of the main issues for banks in India is non-performing assets. The most accurate measure of the state of the banking sector is NPA. NPAs are a reflection of banks' operations. The main markers of credit risk are NPAs. NPAs will always be a drag on the banking sector. Therefore, a bank's success is dependent on its NPA management strategies. In comparison to Co-operative Agriculture, the Rural Development banks have outperformed them in terms of financial activities. The Rural Development Banks have also had somewhat positive results. But these days, the Rural Development Banks' sole issue is the rising proportion of non-performing assets. The Rural Development Banks' non-performing assets have been steadily rising year over year. On the other hand, with the exception of a few years, the non-performing assets of Co-operative Agriculture banks have been declining consistently year over year. In general, a decline in NPAs indicates that banks have improved their credit assessment procedures over time, whereas a rise in NPAs indicates the need for provisions, which lowers the profitability of banks as a whole. The NPA issue in the Indian banking industry is a major one. In comparison to Co-operative Agriculture banks, the size of NPA is bigger in public sector banks. The NPA must be decreased and regulated in order to increase the effectiveness and profitability of banks.

Keywords: non-performing assets, banking sector, credit assessment.

1. Introduction

An abnormal condition of nonperforming assets (NPAs) indicates a high possibility with regard to a large number of credit shirking, which reveals the gainfulness of the assets of the bank and also shatters the assessment of the benefits. The requirement for an agreement is part of the NPA progression, and it lowers the advantages overall and the respect of investors. Non-performing assets (NPAs) have been extensively discussed for currency-related frameworks around the world. This problem is affecting not only the banks but also the whole economy. In depth, the extraordinary state of NPA in Indian banks is only a reflection of the health of trade and commerce. A fair set of guidelines for revenue acknowledgement, resource classification, and provisioning were suggested by the advisory committee. Income is now acknowledged when it is really received, as opposed to in the past when it was expanded. All things considered, a long-running problem that banks had to cope with was that the definition of an NPA had altered under the strain of acceptable standards. At the moment, a benefit or part of an obligation isn't performing if it hasn't been paid after 180 days.

2. Literature Review

Singh, V. R. (2016) Indian banks have concerns about NPAs (NPAs). NPAs affect bank profitability. Non-performing assets are a risk for Indian commercial banks. Some initiatives have been taken to tackle the issue of legacy NPAs on bank balance sheets. Everywhere it's said that the best technique to tackle the issue has seldom been systematically evaluated. There's no consensus on how to solve this challenge. NPAs show bank performance. Greater NPAs signify a high chance of loan defaults, which affects bank profitability and net worth and erodes asset value. Banks' liquidity, profitability, asset quality, and existence are threatened by NPAs. NPAs harm banks and the whole economy. High NPAs in Indian banks indicate the industry and trade's health. Reduce NPAs to enhance banking system health. This article explains NPA, the state and trajectory of NPAs in Indian scheduled commercial banks, the causes leading to NPAs, the significant effect of NPAs on scheduled commercial banks in India, and the recovery of NPAS via different channels.

Mishra, U. M., & Pawaskar, J. R. (2017) Banks help a country's economy. The banking business is vulnerable to credit risk, liquidity risk, interest risk, market risk, operational risk, and management risk. Loan recovery is another danger. A bank's financial health relies on loan repayments or NPAs (NPAs). Reduced NPAs suggest that banks have improved their credit evaluation methods over time, whereas rising NPAs need provisions that reduce banks' overall profitability. Indian banks have an NPA issue. Public banks have more NPA. Reduce and regulate NPA to increase the bank efficiency and profitability.

Agarwala, V., & Agarwala, N. (2019) the growing rate of NPAs in private sector banks is minimal compared to nationalised banks, the SBI, and its partners. The nationalized banks and SBI affiliate banks failed to manage substandard loans adequately, causing a spectacular rise in them. This is interesting research since it tracks the financial crisis. There is no prior research that looked at banking from this standpoint. Research is useful in two ways. First, it shows how various types of banks handle NPAs. Investors care a lot about the problem of bad loans because it affects how much money banks make and their plans for the future.

Sahoo, M. K., & Majhi, M. (2022) this study analyses previous research on Indian commercial banks' non-performing assets (NPA). NPA is a global issue, not only in India. An NPA is a red balloon for India's banking sector. The inquiry aims to summarise the available literature on NPAs. The paper organises available research into parts to analyse identification, growth and composition, drivers, financial ratios, recovery channels, financial sustainability, and other elements of NPA management of commercial banks. The literature reviews are based on a systematic review. The research papers and articles were chosen by searching for keywords in the database's abstracts and conclusions. The systematic review procedure helps choose research papers. This study will help lenders analyse NPAs in new ways and academics and scholars perform exploratory research. The report explains research gaps in NPA management and adds to the literature. A comprehensive NPA assessment can assist in uncovering problems and developing effective management.

3. Methodology

The motivation behind the exploration is to discover the response to the inquiries through the utilization of logical procedure.

Formulating the issue >> Research plan >> Determining the information >>Analyzing the information.

In this paper secondary data which is collected through previous year banking annual reports, journals, and articles. I have prepared my report by using secondary data, by collecting previous year's annual reports and NPA statements of relevant years (2014-2018).

The objectives of the study are

a) To know the Non-performance Assets Concept.

b) To identify the elements influencing NPA

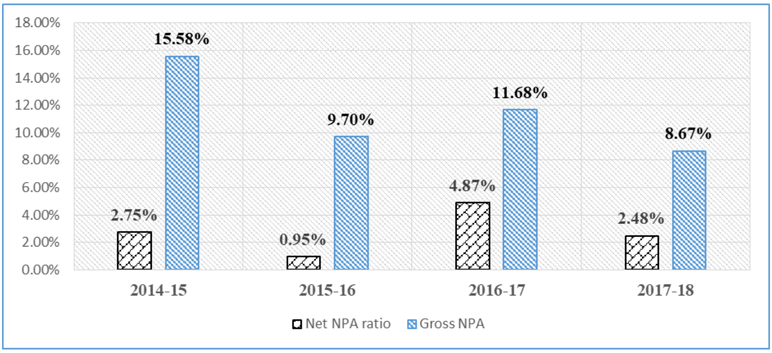
c) To identify the root causes of underperforming assets in the agricultural sector.

d) To determine the most effective controls for NPAs in the PCARD Bank.

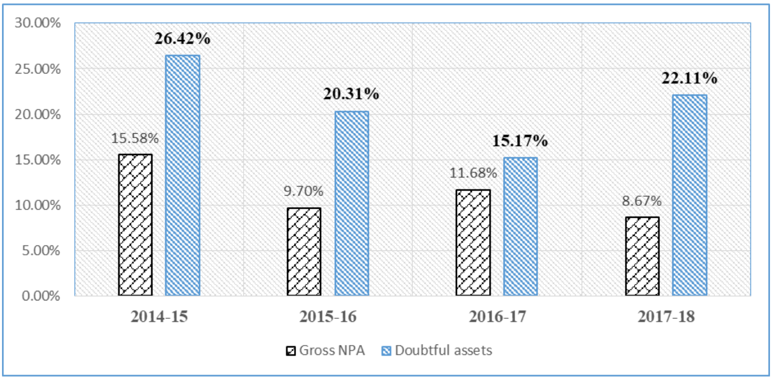
4. Data Analysis and Results

Particulars	2014-15	2015-16	2016-17	2017-18
Gross NPA	2339.84	2268.83	3499.3	3061.41
Gross Advances	15017.48	23368.44	29484.58	35298.19
Gross NPA	15.58%	9.70%	11.68%	8.67%
Net NPA ratio				
Net NPA	359.23	203.71	1332.04	821.69
Net advances	13036.87	21303.32	27317.32	33058.47
Net NPA ratio	2.75%	0.95%	4.87%	2.48%
Provision Ratio				
Total provision	1980.61	2065.12	2167.26	2239.72
Gross NPA	2339.84	2268.83	3499.3	3061.41
Provision ratio	84.64%	91.02%	61.93%	73.15%
Sub-standard Assets				
Total substandard assets	1721.44	1807.89	2968.32	2384.37
Gross NPA	2339.84	2268.83	3499.3	3061.41
Substandard Assets	73.57%	79.68%	84.82%	77.88%
Doubtful assets				
Total doubtful	618.4	460.92	530.98	677.04
Gross NPA	2339.84	2268.83	3499.3	3061.41
Doubtful assets	26.42%	20.31%	15.17%	22.11%
NPA to total advances at the PCARD bank.				
Total advances	128352790	203496370	259999605	309118907
NPA	160225190	314770650	208591660	17028844
NPA in %	9.71%	11.87%	8.67%	7.15%

Source: Financial Statement



Source: Financial Statement



Source: Financial Statement

With the exception of the years 2016–17, the gross NPA ratio has decreased during the previous four years. The bank has thus taken action to reduce its NPA and is now doing so. The net NPA ratio demonstrates the level of risk a bank is facing. A higher net NPA ratio indicates that the bank lacks the financial resources to condition the gross NPA. In March 2015, the netNPA ratio at PCARD Bank was 2.75%; from 2015 to 2018, it was reduced to 2.48%. It has been attained at 4.87% for the year. From 2015 through 2018, the net NPA ratio generally decreased; however, in 2017, it increased by more than 50% as compared to earlier years. This demonstrates that the bank has made sufficient preparations in comparison to prior years.

The arrangement percentage shows the degree of the arrangement, which was made against the bank's gross NPA. The bank made a decision that directly affected the benefit of the bank as well as the profit expense ratio of the bank. In March 2015 and 2016 at PCARD Bank, the provision made was 84.64% and 91.02%, respectively, indicating that it was excessive. However, in March 2017 and 2018, the provision was 61.93% and 73.15%, respectively, indicating that it was adequate. The bank is thus attempting to strike a balance between excess and under provision. The graph shows that the provision ratio increased in 2015 and 2016 but then abruptly decreased in 2016 before continuing to climb after that. The bank is making insufficient provisions.

This shows the bank's gross NPA's proportion of substandard assets. Higher levels of poor assets translate into more substandard asset dimensions in the gross NPA. A high ratio indicates that the likelihood of asset recovery is high. This ratio at PCARD Bank was 73.57% in March 2015; it has been steadily rising over the last four fiscal years, which is positive for the bank; and it is now 77.88% in March 2018, which is also beneficial for the bank. The likelihood of recovering an NPA is increased since there are more inferior assets. The percentage of substandard assets increased steadily between 2015 and 2017, but it abruptly decreased in 2018. The bank had taken significant action to raise the substandard assets in 2016. A higher substandard asset ratio will increase the likelihood of asset recovery. This ratio indicates the percentage of questionable assets in a bank's gross NPA. Growingly doubtful resources indicate that the bank should take action via a recovery strategy to reduce the size of doubtful resources.

The percentage of PCARD bank's dubious assets was 26.42% in March 2015; from 2015 to 2017, it was reduced to 15.17%. However, this ratio once again reached 22.11% in 2018. The bank's questionable assets have grown over the last four years, as shown by the graph next to it. It is undesirable from the perspective of banks. Standard assets have increased over the last four years, which is good for the bank. The overall decline in substandard assets was not beneficial to the bank, and the bank should implement the new regulations in order to grow. The NPA percentage fluctuations in various sectors at the PCARD bank are shown in the table above. The NPA grew by 161.65% in 2016-17. In 2017–18, it dropped to 90.14%. Other loans have a significant NPA compared to short-term loans, with the exception of 2014–15. This raises the bank's risk. The bank must have a rigid convert policy. The total NPA for long-term loans at PCARD Bank is shown in the table above. There is an upward trend in the percentage of long-term loans between the financial years 2014–15 and 2017–18. In the years 2014–15, the NPA for long-term loans tended to rise, while in the years 2016–17, it tended to fall. NPA for long-term loans increased in 2015-16. From 2014–15 to 2016–17, there has been a decline in the proportion of total long-term NPA loans to total credit provided to the agricultural sector. It demonstrates that the bank has taken appropriate action to manage the NPA. The accompanying table demonstrates that, with the exception of 2014–15, the ratio of total non-performing assets to total loans at the PCARD bank has continued to decline. The decline in the overall NPA over the previous four years demonstrates the improvement in the bank's performance. The bank is adopting recovery measures to reduce NPAs effectively.

5. Conclusion

The Primary Co-Operative Agriculture and Rural Development Bank's report on non-performing asset management has been a useful source of information. I now have the chance to comprehend the cooperative financial industry. The best way for the Primary Cooperative Agriculture and Rural Development Bank to lower the number of non-performing assets is to put more focus on technical improvements that will allow accurate and frequent account monitoring and follow-up. The recovery strategies for impaired loans need to be revised with the following factors in mind: establishing a deadline for recovering a specific impaired loan; designating a specific person as responsible for recovering a specific loan; and providing that person with the infrastructure and authority to take appropriate action. In addition to the aforementioned conclusions, the level of non-performing assets should be reduced, and to increase the like, special efforts should be made in regard to large advances, and more attention needs to be paid to strategy planning by employees with self-set goals to educate the borrower.

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Chapter - 2

A Study on Acceptance of Artificial Intelligence in Banking Sector

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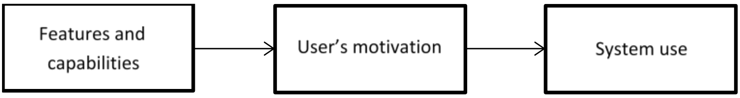
Abstract

Artificial intelligence is determined to be the key to changing of the various critical issues faced by employees and customers while maintaining a competitive edge. Artificial intelligence is the law of progress in computer structures, which generally allows human intelligence to perform tasks that require recognition, including speech recognition, visual recognition, language translation, and troubleshooting. The Artificial Intelligence (AI) approach is being adopted very aggressively in India with the help of the banking sector. One eye has been turned to understand the many internal and external factors that affect the popularity of AI in banks using customer awareness, trust, mentality and customers. Accordingly, amendments can be recommended in the AI adoption method so that the competitive advantage and the submission of banks reaches the public.

Keywords: Artificial intelligence, banking, law, AI.

1. Introduction

With the growing technical demands of the 1970s and the growing failure of system adoption in organizations, predicting the use of the system became an area of interest to many researchers. However, most of the studies conducted have failed to produce reliable measures that could explain the acceptance or rejection of the system. In 1985, Fred Davis proposed the Technology Acceptance Model (TAM) in his thesis at the MIT Sloan School of Management. He suggested that the use of the system is a response that can be explained by user motivation, which is also directly influenced by external stimuli that have the real features of the system and capabilities.



Relying on the previous work of Fishbein and Ajzen, who created the Theory of Reasoned Action, and other related research studies, Davis has redesigned his model to promote the Technology Acceptance Model. The advancement in technology has influenced most of the sectors in the industry, the growth of technology right from Enterprise Resource Planning (ERP) to development in information technology. These all technologies have influenced the industry. The banking sector has witnessed technology acceptance in the past, through the process of computerization. However, the technology has evolved over the- time and there are changes in the technology, through the application of Artificial Intelligence (AI). This technology (AI) has benefited the banking sector with information on the data related to the financial sector and also for the prediction of the growth of business in banking. The technology also needs acceptance from the employees. Hence, there is a need to understand the perception of the employees to accept this technology. To understand and develop the research framework The Technology Acceptance Model (TAM) is designed to measure the adoption of new technology bases on individuals' attitudes. TAM says the success of the adoption of new technologies is based on the positive attitudes of looking at two measures, Perceived usefulness Perceived ease of use. Its foundations date back to the time when Ajzen and Fishbein (1980) did the 'Theory of Reasoned Action', but Davis wanted an easy-to-use model, looking at technology in the workplace. Known as the leading model in interpreting user performance in terms of technology, many researchers later developed and simplified this model, making more complex versions, but the original model is still widely used and widely accepted. This model was a precursor to measuring the user experience and the questions used in the first lesson are still relevant today. Usage refers to the personal use of the program provided in the file context of his work. Therefore, use is a repetitive, multi-action behavior a condition that is clear about the target (specific program), action (direct use) and content (in-person job), and indirectly in terms of time frame. Attitude refers to a level of experimental influence that a person meets and applies a specific plan in his work. Therefore, the definition and measurement of attitude are closely related to a description of the moral state, as recommended by Ajzen and Fishbein. Perceived usefulness is defined as "the level at which a person believes that implementing a particular program will improve his career performance. Perceived ease of use is defined as" the level at which one believes that using a particular program will be free again mental effort. The perceived ease of is thought to have a direct impact that seems useful, because, everything else is equal, an easy-to-use system will result in increased performance for the user. Given that a small fraction of the total user content of the user is provided physical use of each system, if the user is more productive in that part of his work with the ease of use is a great use, then he becomes bigger complete production. Therefore, system features can have an indirect influence to be useful by touching for ease of use. The term Artificial Intelligence stirs emotions. In some cases, there is an intellectual fascination, which seems to give us humans a special place among life forms. In 1955 John McCarthy, one of the pioneers of AI, was the first to define the term Artificial Intelligence almost as follows: The purpose of AI is to develop machines that behave as intelligent. Artificial Intelligence is a lot of different things for different people. On one hand, some view AI with high terms as studying the nature of intelligence and from there, how you can reproduce it. On the other hand, some look at AI in terms of it is a discipline that provides engineering strategies to solve complex problems. The third group of people, perhaps crossing over into the last two, seeks to build machines that will not only show intelligent behavior but also learn to adapt to their environment in much the same way as humans do. AI is an imitation of human ingenuity that helps to build intelligent machines capable of performing human activity in an intelligent way. AI acts as the human brain that can think and decide at a more accurate level, depending on the details fed. Artificial intelligence is now becoming boundless in the current market. It is used in various fields; the banking industry is one of them. The banking industry uses AI in a smart way that saves a lot of time and money. Banks use algorithms to produce accurate results that also help to improve customer service and produce better sales performance to bring profit. AI implementation is important to be noticed in banks because they can't handle clients well, however develops strategies and customizes for the clients to enjoy, thus provides continuous services. So, AI is probably the best way to transform various important issues that customers face; thus, an aggressive element is maintained. The services used are of synthetic Intelligence embody offerings like computerized cheque book re-order facility, and so on, banks internally use them for employees' performance assessment, credit score rating evaluation, merchandise like custom designed investment advices for customers for their portfolios and customized funding solutions after evaluating the credit rating statistics in addition to profits pattern.AI includes machine learning that helps reduce errors caused by emotional and psychological factors. One of the most important tasks AI performs is to channelize important information from various sources and draw conclusions. Therefore, summing up all of the above, we can say that: AI is concerned about building machines that can make and respond appropriately, conforming to its response to the demands of the situation.

The modern banking system began with the opening of the Bank of England in 1694. The Bank of Hindustan became the first bank to be established in India, in 1770. The prior institutions that carried out the banking business under the British authorities were institutional houses that took up the banking business in addition to their commercial activities. The banking system in India is controlled by National banks. The nationalization of 14 banks in India took place in 1969, with another instalment of six banks in 1980. Before nationalization, Indian banks apart from the State Bank of India alone were in public hands. The nationalization of banks reduced the importance of private sector banks and public sector banks began to play a major role in expanding the range of banking services to the nook and the corner of the country.

The banking system in India is very different from other Asian nations because of the various national, social, and economic factors. India has a large population, world size, cultural diversity, and extreme income disparities which are noted in its regions. There are high levels of illiteracy within a large percentage of the population, but at the same time, the country has a vast repository of management and technical talents. About 30 to 35 percent of the population lives in large cities and towns, and some are still scattered in a few urban and rural areas. The national economic policy framework incorporates socialism and capitalism with a strong bias towards investment in the public sector. India has followed a path of trade-led growth without export growth in other Asian economies, emphasizing self-reliance by importing goods. These factors are reflected in the structure, size, and diversity of the country's banking and financial sector. The banking system has had to implement the principles of economic policies outlined in five consecutive five-year plans, particularly about equitable distribution, equitable economic growth in the region, and the reduction and liquidation of private commercial and industrial enterprises. For the banking industry to function as a national policy tool, it was placed under various nationalization programs at various stages (1955, 1969, and 1980). As a result, banks remain isolated around the world due to concerns over domestic priorities, especially large branch expansion and mass attraction. In addition, the sector has been tasked with providing support to other economic sectors such as agriculture, small industries, exports, and banking services in developed centers. The segregation of the international banking system was also due to the strict regulation of branch licenses for existing foreign banks operating in the country and the entry restrictions imposed on new foreign banks. A condition of restitution is required in any bank in India to open an office abroad. These factors have left India's banking sector weak and strong.

Indian banks are looking at how, under the current patent framework, they can get the best performance possible for today's financial interventions. On the other hand, it has been much easier for public sector banks to repatriate money due to the increase in Non-Performing Assets (NPAs), as their government governs homeownership and reduces the interest rate conflicts that private banks face.

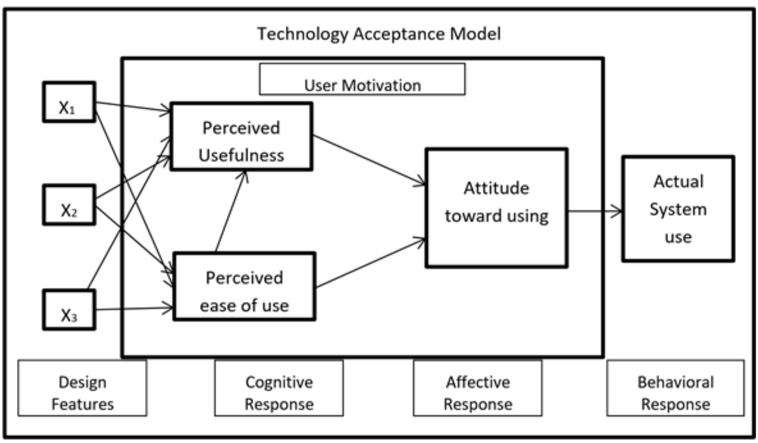
2. Literature Review

The Fishbein model (1967) was chosen as an internal reference paradigm formed by the proposed technology adoption model. This model was first described by Fishbein (1967) and further analyzed and refined by Fishbein and Ajzen (1975) using three statistics. The first equation indicates that the person's intention to act in a certain manner (Blact) is a quick explanation for his apparent performance of that behavior (B) and that a person's intention is jointly determined by his or her attitude in terms of morality (Aact) and visible social influence of people who are important to the individual (SNact). The second equation implies that an individual's attitude toward a given behavior is a function of the perceived consequence; of discharging the behavior multiplied by the evaluations of those consequences.

The third equation states that the individual's biased norm is the function of "the perceived expectations of particular referent individuals or groups and by the person's motivation to follow those expectations."

2.1. Technology Acceptance

The Acceptance Technology model has been used in various areas of information technology and information system. Moon and Kin (2001) expanded the Technology Acceptance Model to define user acceptance in the context of the World-Wide-Web. Lin *et al*. (2007) Extended Technology Acceptance Model to clarify the purpose of users' stock behavior. Chen and Chen (2009) reviewed the Technology Acceptance Model to understand the purpose of use of telematics vehicles. Stern *et al*. (2008) have proposed a revised Technology Acceptance Model to investigate consumer acceptance at online auctions. Serenko *et al*. (2007) Modified Technology Acceptance Model to assess user acceptance of interface agents in everyday applications. Chen *et al*. (2009) proposed an integrated model including the Technology Acceptance Model, Theory of planned behavior, and Technology Readiness to explain the use of automated technology users. MullerSeitz *et al*. (2009) use the Technology Acceptance Model for safety concerns to understand customer acceptance of Radio Frequency Identification (RFID). Technology Acceptance Model is a powerful but aggressive theory and it helps to define a specific knowledge system or technology. Therefore, many studies have suggested extended models for the Technology Acceptance Model. Taylor and Todd (1995) proposed a combined TAM and TPB model (called Combined TAM-TPB). Venkatesh and Davis (2000) proposed TAM2 as a new version of the Technology Acceptance Model. Venkatesh *et al*. (2003) proposed an Integrated Theory for the Acceptance and Use of Technology. Lin *et al*. (2007) proposed TRAM (e.g., integration of technological readiness and Technology Acceptance Model). Chang (2008) proposed an integrated Task-technology fit and Technology Acceptance Model.



The above flowchart explains the working of Technology Acceptance Model

Ajzen and Fishbein's [1980] Theory of Reasoned Action (TRA) to "define General computer acceptance annotations, which can describe user performance across a wide range of technology for using end users and people, at the same time both of which are morally sound and considerate" [Davis *et al*. 1989, page. 985]. After the introduction, researchers at this time conducted several TAM studies that were very focused on two streams.

First try to replicate TAM with other techniques, longitudinal conditions, and research settings, to determine if it is an offensive model.

Another stream compared TAM to its origin, TRA, to investigate whether TAM could be separated from TRA and whether TAM is higher than TRA.

Artificial Intelligence

In a very broad account, the areas of artificial intelligence are divided into sixteen categories (Becker *et al*. (2000), Singer *et al*. (2000), Chen and Van Beek (2001), Hong (2001) and Stone *et al*. (2001)). These are: reasoning, editing, artificial life, theory review, data mining, AI distribution, expert systems, genetic algorithms, systems, information representation, machine learning, natural language comprehension, neural networks, authentication theorem, limited satisfaction, and computer perspective (Peng and Zhang (2007), Zhou *et al.* (2007) and Wang *et al*. (2007)).

Reasoning

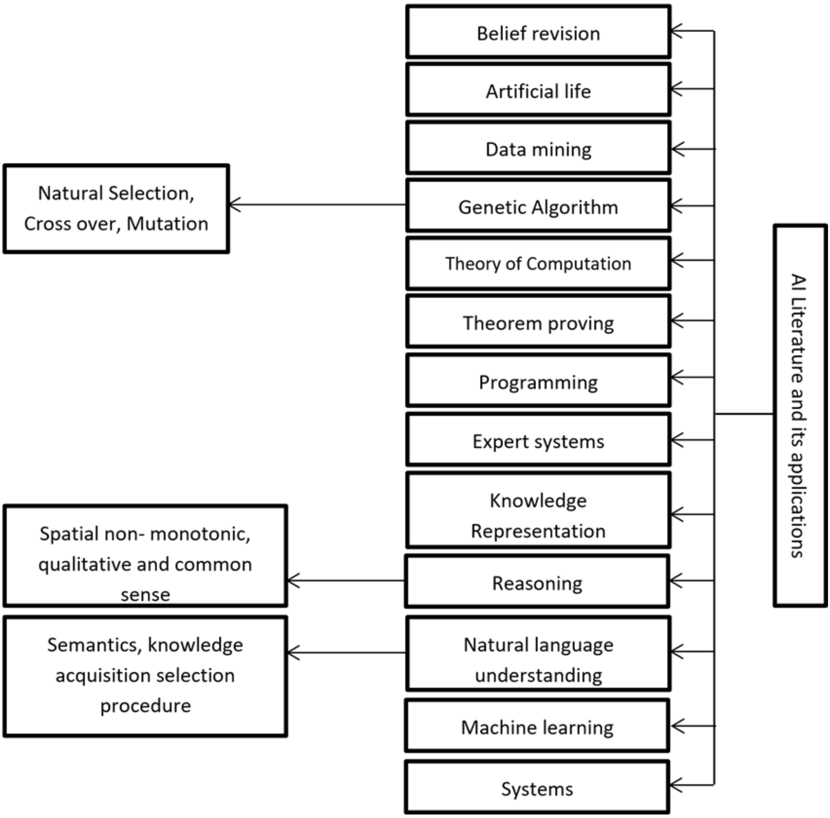
The concept of Artificial Intelligence is discussed in some common areas, including complexity of thinking, subconscious thinking, axiomatization, algorithm sampling, conditional credibility, efficient methods, comprehension and consistency, abstract understanding of meaning, backbone fragility, diagnosis, autonomy, domain filtering, and integration. Sensitive texts of thought are related to spatial integration and thoughts of explicit interpretation. Cristani (1999) introduced the novel algebra of spatial thinking; therefore, indicating that the problem of local algebra satisfaction MC-4 is NP-complete, and presents a complete separation of algebraic movements, based on three subdivisions of small physical classes, they contain basic relationships.

2.2. Natural Language understanding

Natural language texts generally contain many elements. Within the limits of the work reported here, scholars have investigated the semantic process, mapping, data acquisition and the process of selecting native languages. The first two lists address the representation of natural languages in the form of taxonomy and link semantic together in the group. Acquisition of information and selection has been treated from a job perspective and informed of the problem at hand.

2.3. Genetic Algorithm

Genetic algorithm is an important and growing part of artificial intelligence documents with many research results. A good example of these studies can be found in Turney (1995). The study introduces ICET, a new cost-sharing algorithm. ICET uses a genetic algorithm to convert the number of biased people with a tree import algorithm. ICET compares here with three other critical cost classification algorithms - EG2, CS-ID3, and IDX- and C4.5, which separates without regard to cost.



The above flowchart represents the broad classifications that are considered under Artificial Intelligence.

AI in Banking

Banks are regarded as the lifeblood of the economy as it handles cash, debt and financial transactions. It is astonishing to know that the entire banking system is so well connected that every transaction can be tracked and any exchange of information can be done in any part of the world by connecting to these networks. This effortless operation of the banking sector using computers and networks is only possible because of Artificial intelligence. In addition, there is also the rapid growth of e-commerce in the country and as a result there is a steady increase in the use of credit cards for online shopping. On the other hand, it also provides credit card fraud services. Raj & Portia (2011) analyzed that artificial intelligence is one of the various methods that will be used to detect credit card explosions. As well as detecting credit card fraud, artificial intelligence has been used effectively. To reduce operating costs and improve efficiency, the banking sector uses new technologies such as AI, cloud and block-chain. In addition, digital production is also growing rapidly and is influencing banks to adopt new technologies to better serve customers. I mean technological change adopted by banks to control cybercrime Jewandah (2018). AI also helps the banking industry by detecting fraud, assessing creditworthiness and providing personalized services. But one of the biggest challenges before banks is cyber security threats and vulnerability for Vijai (2019). With so many challenges while using AI, only about 10 percent of organizations use AI to compete in the Frankel market (2018). Despite the increasing adoption of AI in the banking sector, technology is still in its infancy. This is because there are fewer threats ahead of the banking sector such as infrastructure, increased technology, attracting staff and so on. In addition to threats, new strategies such as chatbots and artificial intelligence have been adopted by the banking industry to improve customer satisfaction Vedapradha and Hariharan (2018). AI has also been used in the banking sector for alternatives such as the use of AI in assessing impacts on internal control efficient and cost effective Omoteso K. (2012). In addition, the AI process and performance research was also used to evaluate the performance of Fethi, M.D. & Pasiouras F. (2010).

From the above content, it is considered that as the artificial intelligence is in its initial stage, the banking sector is taking the initiative to adopt new technologies. Few studies have explored the benefits, challenges and threats of AI in the banking industry, the use of artificial intelligence in fraudulent activities and banking performance. The literature studied by the researcher also found that there are very few studies designed for artificial intelligence referring to the banking industry. Most of the studies and reports have been done and published around the world and very few studies are done in the Indian context. Therefore, the current study focuses on the application of artificial intelligence in the banking sector and how AI can improve the business outcomes of the banking sector.

3. Conclusion

This study shows the level of acceptance of Artificial Intelligence in the banking sector by the employees. This study adopted the Technology Acceptance Model which included Perceived Usefulness (PU), Perceives Ease of Use (PE), and Attitude to Use (AU) and Intention to Use (IU) with addition of the experience of the employees, designation, and others. The data analysis shows that employees are aware about the ease of using AI and its benefits, but are unaware about how to use it. Hence, with the introduction of AI based banking services, there will be more demand and supply in the banking sector.

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Chapter - 3

A Study on Credit Management and Issues of Bad Debts in Commercial Banks in India

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Abstract

This research aims to look at the factors that impact a bank's financial success when it comes to credit risk management. Default rate, cost per loan asset, and capital sufficiency are examples. Reduced DSO, handling mergers and acquisitions, analysing cash burn rates, the necessity of working capital, how to handle credit applications, sales vs. credit, and more are some of the major challenges that effect credit management.

Keywords: Commercial Banks,

1. Introduction

Banking enterprise has been acknowledged for intermediation element in furnishing monetary backing (credit score) demanded withinside the economy. This element is usually accomplished in severa methods thru granting of loans and advances to customers, that are the principal a part of financial institution lending. Apart from loans and advances, there are different styles of banking or financial institution credit or bonds issued via way of means of banks for and on behalf of consumers. Banks are definitely custodians of the capitalist which they deliver out to their customers as a mortgage on which the hobby should be paid to depositors and suggestions to the investors. Loans and advances are the complete quantum of coins a financial institution lends fraudulent its customers at any given length of your time. Bank mortgage is a quantum of coins lent at hobby via way of means of a financial institution to a borrower, normally on contributory security, for a specific length of your time. The fitness of the monetary machine has vital element withinside the country (Das & Ghosh, 2007) as its failure can disrupt worthwhile improvement of the country The fitness of the monetary machine has vital element withinside the country (Das & Ghosh, 2007) as its failure can disrupt worthwhile improvement of the country Credit danger is the oldest shape of danger that is confronted via way of means of the bankers throughout the globe. It's the risk of failure on loans. Credit danger is the most important danger the financial institution face via way of means of the distinctive feature of nature of business, inherits. If credit score may be described as "not anything however the anticipation of an amount of cash inside a few constrained time" additionally credit score danger is the opportunity that this anticipation will now no longer be fulfilled. Credit danger is antique as lending. In current a long-time credit score danger has come pervasive. Companies undertake to make accessions and to grow, small enterprise undertake to amplify their ability and individualities use credit score for different purpose. Credit danger is maximum described because the eventuality that a financial institution borrower or counterparty will fail to satisfy its ratings in settlement with agreed terms. The element of credit score danger operation is to maximise a financial institution's danger- acclimated price of go back via way of means of retaining credit score danger publicity inside decent parameters.

Banks want to control the credit score danger critical withinside the complete portfolio in addition to the danger in character credit or deals. Banks must additionally recollect the connections among credit score danger and different pitfalls. The powerful operation of credit score danger is a crucial detail of a complete method to danger operation and critical to the long- time period achievement of any banking association. Since publicity to credit score danger is still the main supply of issues in banks world-wide, banks and their directors must be appropriate to attract beneficial assignments from as soon as gests. Banks must now have an eager mindfulness of the want to identify, measure, cover Credit Threat is the oldest shape of danger that is confronted via way of means of the bankers throughout the globe. It's the danger of dereliction on loans. Credit danger is the most important danger the financial institution face via way of means of the distinctive feature of nature of enterprise, inherits. If credit score may be described as "not anything however the anticipation of a sum of plutocrat inside a few constrained time" additionally credit score danger is the opportunity that this anticipation will now no longer be fulfilled. Credit danger is antique as advancing Credit danger is the oldest shape of danger that is confronted via way of means of the bankers throughout the globe. It's the danger of failure on loans. Credit danger is the most important danger the financial institution face via way of means of the distinctive feature of nature of enterprise, inherits. If credit score may be described as “not anything however the anticipation of a sum of plutocrat inside a few constrained time” additionally credit score danger is the opportunity that this anticipation will now no longer be fulfilled. Credit danger is antique as advancing Credit danger is the oldest shape of danger that is confronted via way of means of the bankers throughout the globe. It's the danger of dereliction on loans. Credit danger is the most important danger the financial institution face via way of means of the distinctive feature of nature of enterprise, inherits. If credit score may be described as “not anything however the anticipation of an amount of cash inside a few constrained time” additionally credit score danger is the opportunity that this anticipation will now no longer be fulfilled. Credit danger is antique as lending. Credit danger is the oldest shape of danger that is confronted via way of means of the bankers throughout the globe. It's the danger of dereliction on loans. Credit danger is the most important danger the financial institution face via way of means of the distinctive feature of nature of enterprise, inherits. If credit score are regularly described as “not anything however the anticipation of a sum of coins inside a few constrained time” additionally credit score danger is that the opportunity that this anticipation may not be fulfilled. Credit danger is antique as lending.

The experimenter shall proffer recommendations on his findings. The work is divided into 5 chapters. Chapter one consists of the preface, bankruptcy consists of the literature assessment at the product content material agitating the records of Union financial institution in addition to the operation of mortgage and credit score along with the coverage and manner in Union financial institution of India plc, Research layout and technique are argued in bankruptcy three, Data analysis/ dialogue of findings and check thesis are contained in bankruptcy 4 and bankruptcy 5 incorporate precis of findings, advice and conclusion. Every economic business enterprise like financial institution is set up to deliver correctly an awesome variety of economic offerings to its clients with a purpose to growing profit. Hence, financial institution’s position withinside the developmental efforts in an economic system can't be underestimated. One of the cardinal roles of banks is to make the deposits and investments surplus and beneficial through lending it to human beings for numerous funding purposes: organization growth, education, houses, amongst others (Bart Baesens and Tony Van Gestel, 2009). Commercial banks use deposits extra frequently than to now no longer decorate its profitability via advancing deposits mobilization to its client’s withinside the styles of loans and advances. The lending pastime is fashioned feasible as an effects of the very truth that the financial institution has the economic muscle to mobilize sufficient price range from their clients

(Tuyishime, *et al*, 2015).The causes of bad debt could be based on four main classified causative agents. They are as follows´´ Borrowers or customers, Banks, Government and Nature related factors.

1.1. Borrowers or Customer

Customers are blind to the reality that financial institution like different commercial ventures, are out to make income through promoting their products(mortgage) instead, they understood it to be an area in which authorities and different well-to-do humans keep their cash. Consequently, they regard quantity borrowed to be "National cake 'as opposed to as an editorial bought which ought to be paid for. On a part of our elite in white, they regard cash borrowed as a part of their gratuity which must now no longer be paid. Furthermore, it's miles Absence of discussion board via way of means of banks for enlightenment education of clients ensuing to loss of manner on record judgement for joint solution. Poor supervision of mortgage extended: mortgage diverted to a non-profits yielding mission effects to put off of fee or default totally. Therefore mortgage given ought to be traced to the quantity of seeing wherein it's miles invested via way of means of the financial institution. Late and inconvenient disbursement on loans via way of means of banks both due to the chance component inherent and because of insufficient team of workers or different bureaucratic and administrative put off. Convenient amortization agenda additionally make contributions in credit score control coverage of the financial institution. Both mortgage trouble and chance of loss are rarely divorced from the lending operations. Proportion of the overall loans and advances made via way of means of the banker might generally come to be sticky. That is why even the first-class controlled banks offer for awful and dubious money owed of their regular direction of business. The first-class alternative for a banker wishing to keep away from awful money owed might now no longer lead. However, this isn't always so, considering hobby carried on lending represent a terrific percentage of banks earnings. Agreeing that awful money owed are emotive. Words to bankers, Dandy (1975) enumerates a few elements that can also additionally motive awful and dubious money owed to arise. These elements encompass: Excessive lending or safety values Bad control of debtors financial institution account incomplete expertise of clients activities 4. Bad judgment. 5. Extraneous elements inclusive of over trading, over- reliance on change clients, positive stability sheet, misrepresentation and dishonesty of clients.

2. Review of Literature

Olokoyo (2011) used regression evaluation to research the determinants of industrial financial institution lending behaviour in Nigeria. The observe determined that industrial banks deposits have the finest influences on their lending behaviour. Epure and Lafuente (2012) tested financial institution overall performance withinside the presence of danger for Costa-Rican banking enterprise for the duration of 1998-2007. The consequences confirmed that overall performance enhancements comply with regulatory changes, and that danger explains variations in banks and non-acting loans negatively have an effect on performance and go back on property even as the capital adequacy ratio has a fine effect at the internet hobby margin.

Victor and Eze (2013) tested the effect of financial institution lending price at the overall performance of Nigerian Deposit Money Banks among 2000 and 2010. It mainly decided the outcomes of lending price and financial coverage price at the overall performance of Nigerian Deposit Money Banks and analysed how financial institution lending price coverage influences the overall performance of Nigerian deposit cash banks. The observe applied secondary information econometrics in a regression, in which time-collection and quantitative layout have been mixed and estimated. The end result showed that the lending price and financial coverage price has tremendous and fine outcomes at the overall performance of Nigerian deposit cash banks.

Felix and Claudine (2008) investigated the connection among financial institution overall performance and credit score danger control. It may be inferred from their findings that go back on equity (ROE) and go back on property (ROA) each measuring profitability have been inversely associated with the ratio of non-acting mortgage to overall mortgage of economic establishments thereby main to a decline in profitability.

Kargi (2011) evaluated the effect of credit score danger at the profitability of Nigerian banks. Financial ratios as measures of financial institution overall performance and credit score danger have been accrued from the yearly reviews and bills of sampled banks from 2004-2008 and analysed the use of descriptive, correlation and regression techniques. The findings discovered that credit score danger control has a tremendous effect at the profitability of Nigerian banks.

It concluded that banks profitability is inversely stimulated through the tiers of loans and advances, non-acting loans and deposits thereby exposing them to remarkable danger of illiquidity and distress. At the profitability of Nigerian banks. It concluded that banks profitability is inversely.

Kolapo, Ayeni, And Oke (2012) empirically investigated impact of credit score chance at the overall performance of business banks in Nigeria over the length of eleven years (2000-2010).

Five business banking corporations had been decided on a move sectional foundation for 11 years. The conventional earnings idea become hired to formulate earnings, measured via way of means of Return on Asset (ROA), as a feature of the ratio of non-appearing mortgage to mortgage & Advances (NPL/LA), ratio of Total mortgage & Advances to Total deposit (LA/TD) and the ratio of mortgage loss provision to categorized loans (LLP/CL) as measures of credit score chance. Panel version evaluation become used to estimate the determinants of the earnings feature. The outcomes confirmed that the impact of credit score chance on financial institution overall performance measured via way of means of the Return on Assets of banks is move-sectional invariant. That is the impact is comparable throughout banks in Nigeria, aleven though the diploma to which character banks are affected isn't captured via way of means of the approach of evaluation hired withinside the take a look at. An a hundred percentage boom in non-appearing mortgage reduces profitability (ROA) via way of means of approximately 6.2 percentage, an a hundred percentage boom in mortgage loss provision additionally reduces profitability via way of means of approximately 0.65percent whilst an a hundred percentage boom in general mortgage and advances boom profitability via way of means of approximately 9.6 percentage.

Epure and Lafuente (2012) tested financial institution overall performance withinside the presence of chance for Costa-Rican banking enterprise in the course of 1998-2007. The outcomes confirmed that overall performance upgrades observe regulatory changes, and that chance explains variations in banks and non-appearing loans negatively have an effect on performance and go back on belongings whilst the capital adequacy ratio has a nice effect at the internet hobby margin.

Kithinji (2010) assessed the impact of credit score chance control at the profitability of business banks in Kenya. Data on the quantity of credit score, stage of non-appearing loans and income had been amassed for the length 2004 to2008. The findings found out that the majority of the income of business banks aren't stimulated via way of means of the quantity of credit score and non-appearing loans, consequently suggesting that different variables aside from credit score and non-appearing loans effect on income.

Credit chance is the chance that a mortgage which has been granted via way of means of a financial institution, will now no longer be both in part repaid on time or fully (Campbell, 2007), and wherein there may be a chance of consumer or counterparty default (Gray, *et al.*, 1997). Prior to economic region deregulation, banks had been relatively stimulated to supply credit score facility to customers who ought to effortlessly specific their creditworthiness (Bryant, 1999). Deregulation provided the possibility to fulfill the needs for credit score throughout an extensive variety of borrowers. Large quantity of awful credit score, because of boom-time advances withinside the 1980's, induced the banks to be too cautions in extending credit score (Boyd, 1993; Bryant, 1999).

Chen and Pan (2012) tested the credit score chance performance of 34Taiwanese business banks over the length 2005-2008. Their take a look at used economic ratio to evaluate the credit score chance and become analysed the usage of Data Envelopment evaluation (DEA). The credit score chance parameters had been credit score chance technical performance (CR-TE), credit score chance allocative performance (CR-AE) and chance value performance (CR-CE). The end result indicated that simplest one financial institution is green in all sorts of efficiencies over the evaluated periods. Overall, the DEA outcomes display extraordinarily low common performance tiers in CR-TE, CR-CE and CR-CE in 2008.

Uwalomwa *et al* (2015) seriously assessed the consequences of credit score control on banks overall performance in Nigeria. In reaching the goals diagnosed on this take a look at, the audited company annual economic assertion of indexed banks protecting the length 2007-2011 had been analysed. More so, a sum of 10 indexed banks had been decided on and analysed for the take a look at the usage of the purposive sampling approach. However, in an assessing the studies postulations, the take a look at followed using each descriptive records and econometric evaluation the usage of the panel linear regression technique which includes periodic and move-sectional statistics withinside the estimation of the regression equation. Findings from the take a look at found out that whilst ratio of non-appearing loans and awful debt do have a huge bad impact at the overall performance of banks in Nigeria, on the opposite hand, the connection among secured and unsecured mortgage ratio and financial institution's overall performance become now no longer huge.

Commercial banking performs a dominant role (Allen & Gale, 2004). In many countries, business banks mechanically carry out funding banking sports via way of means of offering new debt to their customers (Gande, 2008). The credit score introduction technique works easily whilst finances are transferred from closing savers to borrower (Bernanke, 1993). There are many capability reasserts of chance, consisting of liquidity chance, credit score chance, hobby charge chance, marketplace chance, forex chance and political risks (Campbell, 2007). However, credit score chance is the most important chance confronted via way of means of banks and economic intermediaries (Gray, Cassidy, & RBA., 1997). The signs of credit score chance encompass the extent of awful loans (non-appearing loans), hassle loans or provision for mortgage losses (Jiménez & Saurina, 2006).

Ahmad and Ariff (2007) tested the important thing determinants of credit score chance of industrial banks on rising financial system banking structures as compared with the advanced economies. The look at discovered that law is crucial for banking structures that provide multimerchandise and offerings; control best is vital withinside the instances of mortgage-dominant banks in rising economies.

Felix and Claudine (2008) tested the affiliation among the overall performance of banks and credit score chance control. As a part of their findings, they located that go back on fairness and go back on belongings each measuring profitability had been inversely associated with the ratio of non-appearing mortgage to overall mortgage of monetary establishments thereby main to a decline in profitability. Also, Hosna, *et al*. (2009) of their look at opined that credit score chance has an enormous high quality impact at the profitability of industrial banks in Sweden.

Credit chance control procedures implement the banks to set up a clean technique in for approving new credit score in addition to for the extension to current credit score. These procedures additionally observe tracking with unique care, and different suitable steps are taken to govern or mitigate the chance of linked lending (Basel, 1999). Credit granting process and manipulate structures are essential for the evaluation of mortgage utility, which then ensures a financial institution's overall mortgage portfolio as in step with the financial institution's usual integrity (Boyd, 1993). It is essential to set up a right credit score chance environment, sound credit score granting procedures, suitable credit score administration, measurement, tracking and manipulate over credit score chance, coverage and techniques that surely summarize the scope and allocation of financial institution credit score centers in addition to the method wherein a credit score portfolio is controlled i.e. how loans are originated, appraised, supervised and collected, a primary detail for powerful credit score chance control (Basel, 1999). Credit scoring procedures, evaluation of poor occasion's probabilities, and the resultant losses given those poor migrations or default occasions, are all crucial elements concerned in credit score chance control structures (Altman, Caouette, & Narayanan, 1998).

Most research were willing to attention at the troubles of growing a powerful approach for the disposal of those awful debts, as opposed to for the supply of a regulatory and criminal framework for his or her prevention and manipulate (Campbell, 2007). In industrial lending, industrial banking performs a dominant function (Allen & Gale, 2004). Prior to monetary region deregulation, banks had been noticeably stimulated to supply credit score facility to customers who ought to without problems explicit their creditworthiness (Bryant, 1999).

Deregulation supplied the possibility to fulfil the needs for credit score throughout a huge variety of borrowers. Large quantity of awful credit score, because of boom-time advances withinside the 1980’s, triggered the banks to be too cautions in extending credit score (Boyd, 1993; Bryant, 1999). The signs of credit score chance encompass the extent of awful loans (non-appearing loans), hassle loans or provision for mortgage losses (Jiménez & Saurina, 2006). Credit chance is the chance that a mortgage which has been granted through a financial institution, will now no longer be both in part repaid on time or fully (Campbell, 2007), and in which there's a chance of purchaser or counterparty default (Gray, *et al.*, 1997). Commercial Banks are entrusted with the finances of depositors.

These finances are typically utilized by banks for his or her business. The fund belongs to the clients so a programme ought to exist for control of those finances. The programme ought to continuously deal with 3 primary objectives: liquidity, protection and income. Successful control calls for correct balancing of these types of 3. Liquidity permits the banks to fulfil mortgage needs in their precious and long-set up clients who revel in properly credit score standing. The 2nd goal being protection is to keep away from undue chance for the reason that banks meet duty of defensive the deposit entrusted to them. Proper and prudent control of banks create and subsequently purchaser confidence. The 0.33 being income/profitability that is geared toward increase and growth to fulfil reimbursement of hobby prices on debt, to attain the goal of maximizing wealth of shareholders and to live on opposition withinside the banking enterprise (Okwoli, 1996; Uwuigbe, 2011).

Certainly, many banks have their personal particular objectives. Some desire to develop quicker and attain a few long-variety increase goal, others appear to choose quiet life, minimizing chance and conveying the picture of a valid financial institution, however with modest rewards to their shareholders. Ordinarily, inventory costs and its behaviour are deemed to mirror the overall performance of a firm. This is a marketplace indicator and might not be dependable always. However, the dimensions of the financial institution, the extent of deposit and its profitability can be deemed as extra dependable overall performance signs. In a marketplace-primarily based totally financial system, the banking law holds a totally enormous duty and is taken into consideration as one of the maximum crucial additives of a country's financial system. Banking presents offerings that have a critical function withinside the monetary device of the country.

The capital of the banks is the principle aid of buying productions and offerings; even as their granted loans also are seemed as a credit score for all of the monetary entities like families, occupations, businesses and government. Therefore, the optimum overall performance of the banks and powerful utility of centers are so beneficial in capital usage and extensively in distinctive monetary sports (Abdullah *et al*, 2009). Banks are applicable to monetary improvement via the monetary help they provide. The function of the financial institution because the middleman among the deficit gadgets and the excess gadgets may be stated to be a catalyst for monetary increase. The green and powerful overall performance of the banking enterprise over the years is an index of monetary balance in any nation. The quantity to which a financial institution extends credit score to the general public for effective sports speeds up the tempo of a nation's monetary increase and its long-time period sustainability.

3. Research Methodology

Banking operation could be very vital withinside the affairs of any economic system that essential characteristic of business banks is to keep the deposit, issuing money owed, gathering hobby a good way to have an effect on and play a critical withinside the case go with the drift of a country. This is critical for monetary growth. The business banks are the intermediaries among call for aspect and deliver aspect. Banks are those who problem loans and improve to the public, business, and establishments in which their earnings could be the hobby which they earn out of the issued money owed. In realistic to talk there may be a cycle in which the clients deposit their cash in numerous bureaucracy with banks and banks keep those deposits and in go back problem loans or money owed to the humans and earn the go back in in conjunction with the hobby this cycle chain has the capacity to govern the cashflow withinside the economic system, consequently it's far very vital for a financial institution to earn their go back. But while a debt turns into an awful debt there arises the problem. Bad money owed are the bills which aren't paid, which arises because of uncollectable account charges commonly while a financial institution isn't capable of get better a debt or unpaid for greater than a time frame it's far taken into consideration to be an awful debt. Nowadays we will see that the awful money owed of business banks in India are growing this accelerated even greater on the time of COVID-19 and anticipate elevating even greater that is probable to push up the gross non-appearing assets (NPA) in India to as a minimum 12.5% through march 2021. At this example it's far very vital for us to recognize the motives in the back of the boom of awful money owed in India and take a look at the effect at the banking performance, solvability potential of banks and their effect on Indian economic system.

3.1. Sampling Design

It is based on the performance of 5 banks which is in India, and we are looking to estimate their performance for that we are using an secondary data which is the collection of data such as previous 10 years financial statements of the banks like Bank of Baroda, SBI, Karnataka bank, ICICI, Federal Bank.

3.2. Statistical Tools

Statistical strategies concerned in wearing out a have a look at consist of planning, designing, gathering facts, analysing, drawing significant interpretation, and reporting of the study's findings. The statistical evaluation offers that means to the meaningless numbers, thereby respiration existence into a dull fact. The outcomes and inferences are specific most effective if right statistical exams are used. This article will try and acquaint the reader with the primary studies equipment which are utilised at the same time as undertaking diverse studies. The article covers a quick define of the variables, an expertise of quantitative and qualitative variables and the measures of relevant tendency.

Microsoft Excel is used to evaluate the facts of financial accounts and data gathered since it offers a vast array of tools for data visualisation and quick statistics. It's simple to create precise measures and customise photographs and figures, making it a useful tool for anyone who need to look at the basics in their data. Because so many individuals and organisations own and understand Excel, it's a viable option for anyone who want to get started with statistics. The studies layout used for the take a look at turned into a descriptive studies layout that essentially contain acquiring data regarding the modern repute of phenomena to describe," What exist" with admire to variables or circumstance in a situation (Gardner, Dixie, & S.C., 2004). The populace of hobby turned into the 5 banks that function in India. The take a look at protected the banks running in India; 5 banks have been worried withinside the take a look at. The take a look at protected the duration from 2017 to 2021 due to the fact this turned into the duration that the banking enterprise has gone through numerous change. Secondary records turned into used for the take a look at. The records turned into analysed via way of means of calculating the profitability for every 12 months during take a look at, fashion evaluation turned into performed via way of means of evaluating the profitability ratio to default rate, fee according to mortgage property and capital adequacy ratio. Here for the study, I am using secondary data collection methods. Where it means that the information is already available, and someone analyses it. The secondary data includes magazines, newspapers, books, journals, etc. It may be either published data or unpublished data. As we are looking into the financial and bad debts calculation of the 5 banks here, I am using published sources of information such as: Government publications ,University website ,Library resources, Money control, Capitaline Plus, Public records, Business documents Technical and trade journals.

4. Analysis

Here we are taking both the income and balance of 5year of the banks (Bank of Baroda, State Bank Of India, Federal Bank, Karnataka Bank, ICICI Bank) to clearly know the changes of the bad debts, profits of the banks year to year. Which will help us to ascertain the performance and the financial stability of the banks. Based on the financial statements we are going to look into the banks changing policies and credit management system and on how they have affected the bad debts in these banks. Now let’s look into the income and financial statements of each bank:

The return on assets (ROA) is a ratio that compares a company's net assets to its earnings before interest and taxes (EBIT). The ratio is used to determine how effectively a corporation uses its assets to produce revenue before contractual obligations must be met. ROA = EBIT/ Total Assets is how it's computed. Return on assets is a measure of a bank's capital strength, which varies depending on the business; banks that require a big initial investment will have a lower return on assets (Appa, 1996).

Default rate (DR) is a phrase used in the financial services sector to describe a procedure in which a lender changes the conditions of a loan from normal to default terms, i.e., the terms and rates provided to people who have defaulted on a loan (Appa, 1996). The DR ratio is determined as follows: DR Ratio= Non-Performing Loans/Total Loan the average cost per loan advanced to a client in monetary terms is known as the cost per loan asset (CLA). The goal is to show how efficiently loans are distributed to clients (Appa, 1996). The CLA ratio is determined as follows: CLA Ratio= Total Operating Cost/Total Loan Amount the Capital Adequacy Ratio (CAR) is a ratio that expresses a bank's capital as a proportion of its risk weighted credit exposure. CAR can be calculated as follows: CAR stands for Capital Assets/Risk Weighted Assets.

Overall analysis

The Bank of Baroda (BoB) reported an unexpected loss for the third quarter ended December 31, 2019, as bad loan provisions increased.

The state-owned lender lost Rs. 1,407 crore in a single quarter, compared to a profit of Rs. 471 crore in the previous quarter and Rs. 737 crore in the previous three months. Provisions for nonperforming assets (NPAs) and diminution value for restructured accounts increased to Rs. 662 crore from Rs. 342 crore in the previous quarter, resulting in the loss.

On the asset quality front, there was no improvement, with the proportion of gross nonperforming assets to total loans climbing to 10.43 percent from 10.25 percent sequentially. However, it was lower than the 11.01 percent recorded in the same time previous year. Gross nonperforming assets (NPAs) totalled Rs. 73,139.70 crore, up from Rs. 69,968.95 crore the previous quarter. Slippages, or new accretion to bad loans, increased to Rs. 10,387 crore in the third quarter, up from Rs. 6,001 crore in the previous quarter. BoB said that of the Rs. 10,387 crore in new slippages, Rs. 4,509 crore was due to a discrepancy between the bad loans recorded by the bank and those evaluated by the RBI for the period ending March 31, 2019. The bank's core net interest revenue — interest generated on loans less interest paid on deposits increased by 9% to Rs. 7,128 crore during the period. Deposits in its low-cost current and savings accounts (CASA) increased by 8.81 percent over the same period last year.

SBI has designated 33 debtors with debts of Rs. 500 crore or more as unrecoverable due totalling Rs. 37,700 crore as on March 31. The State Bank of India (SBI), India's largest bank, has wiped off the bad debts of 220 defaulters who owed more than Rs. 100 crore respectively, totaling Rs. 76,600 crore. As of March 31, 2019, the SBI had declared 33 debtors owing it Rs. 500 crore or more as unrecoverable due totalling Rs. 37,700 crore. In a first, the RBI's most recent information, which was provided to CNN-News18 under the Right to Information (RTI) Act, revealed the bank-by-bank breakdown of loans worth more than Rs. 100 crore and Rs. 500 crore that were written off by banks as of March 31 this year. Karnataka Bank recorded a 5.3 percent drop in net profit for the second quarter ended September this fiscal, at Rs105.91 crore, as bad loans grew slightly.

The private sector bank had a net profit of Rs111.86 crore in the previous fiscal year's July September quarter, which ended in March 2019.

The bank's overall income increased to Rs. 1,938.40 crore in the September quarter of 2019-20, compared to Rs. 1,653.81 crore the previous year, according to a regulatory filing.

The bank's asset quality suffered a minor setback as gross non-performing assets (NPAs) increased to 4.78 percent of gross loans on September 30, up from 4.66 percent a year ago. Gross nonperforming assets (NPAs) totaled Rs. 2,594.27 crore, compared to Rs. 2,371.62 crore in absolute terms.

Similarly, net nonperforming assets, or bad loans, increased to 3.48 percent (Rs. 1,863.11 crore) from 3% (Rs. 1,497.68 crore) a year before.

The provisions for bad loans and contingencies were also increased to Rs262.40 crore for July-September, up from Rs193.22 crore in the same quarter of the previous fiscal year.

As of September 30, the provision coverage ratio was 59.19 percent (57.49 percent as on September 2018)

- During the September quarter of 2019-20, the bank's overall income increased to Rs. 1,938.40 crore, up from Rs. 1,653.81 crore the previous year.
- The bank's overall business is Rs. 1,23,658.07 crore, an increase of 8.61 percent year on year.

5. Findings

The end result of the confirmed that credit score danger control is an vital predictor of financial institution economic overall performance for this reason achievement of financial institution overall performance relies upon on danger control. The have a look at effects additionally confirmed that default charge as one of the danger control indictors is a chief predictor of the financial institution economic overall performance to the quantity of 56% and observed through capital adequacy ratio at 25%. Credit danger control is vital at the financial institution overall performance because it have a huge dating with financial institution overall performance and contributes as much as 22.6% of the financial institution overall performance. Indian banks are already grappling with 9.35 trillion rupees ($123 billion) of soured loans, which became equal to approximately 9.1% in their general property on the quit of September 2019. "There is a taken into consideration view withinside the authorities that financial institution non-acting property (NPAs) ought to double to 18-20% through the quit of the monetary year, as 20-25% of amazing loans face a hazard of default," the respectable with direct know-how of the problem said. A clean surge in horrific debt ought to hit credit score increase and put off India's restoration from the coronavirus pandemic. "These are extraordinary instances and the manner it is going we will assume banks to file double the quantity of NPAs from what we have got visible in in advance quarters," the finance head of a pinnacle public zone financial institution informed Reuters.

6. Conclusion

When the post-pandemic phase arrived, the attention would shift to a gradual unwinding of regulatory and other exemptions. The challenges ahead must be met with the overall goal of protecting the financial system's long-term stability, which is important for sustaining the recovery. The COVID-19 outbreak is expected to increase gross non-performing assets in India's banking industry to at least 12.5% by March 2021, up from 8.5 percent in May 2020.

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Chapter - 4

A Study on Mobile Banking with Specific Reference to Ujjivan Small Finance Bank

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Abstract

Mobile banking is the practice of accessing and managing one's banking accounts and carrying out different financial transactions using a mobile device, such as a smartphone or tablet. Without having to stop by a bank branch or ATM, mobile banking apps provide a quick and secure way to manage one's accounts while on the go. The study focuses on the role of mobile banking with special reference to Ujjivan Small Finance Bank.

Keywords: Bank, customer, mobile banking, Ujjivan Small Finance Bank.

Introduction

According to Investopedia "A bank is a financial institution licensed to receive deposits and make loans. Banks may also provide financial services such as wealth management, currency exchange, and safe deposit boxes. There are several different kinds of banks including retail banks, commercial or corporate banks, and investment banks. In most countries, banks are regulated by the national government or central bank."

India with the 1.30 billion people represents a huge market with tremendous opportunities for expanding financial access. In the recent past, banks have launched mobile websites and banking apps for providing their services through mobile. Mobile banking (also known as M-banking, MS-banking) is a term used for performing banking transactions, payments, etc.

The Global Mobile Banking Report found that m-banking is rapidly adopted by new users and it is largest banking channel by volume of transaction. The most interesting finding was that adoption rates are highest in developing countries reaching about 60-70% in India and China.

The main reason of increasing in trend of m-banking is that it helps to perform banking activities at anytime and anywhere. M-banking ensures customers in clearing and settlement of transactions through nationwide and enabling real fund transfer in any bank account and operated by users using mobile banking services of any operators.

Review of Literature

(Rani) Discusses in the academic paper how mobile banking can be true financial inclusivity in the region of Indian as it has brought in various other 3rd world countries like Kenya. Financial inclusion denotes delivery of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups.

(Sohail, 2012) In their paper discuss about the application of diffusion theory in the mobile banking sector. Even though his study is limited to the Saudi Arabian market it gives a good model of technological transition as Saudi Arabia has a similar developmental level as India. DIT is a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures

Research Design

A research design is a framework or blueprint for conducting the marketing research project. It details the procedures necessary for obtaining the information needed to structure or solve marketing research problems. In simple words it is the general plan of how you will go about your research

Mobile banking become one of the staples of the modern banking system with many smaller banks also adopting the system. But as more banking organization go onto to invest in a mobile banking infrastructure we must consider the inherent problems which comes tagged along with the mobile banking like with any other form of technology there is more than adequate room for improvement in the mobile banking window. This could be purely thematic or structural changes which can be done to the app on which the mobile platform is operating thought or it may require a restructuring of the entire mobile banking experience from the ground up

From a mere profit margin stand point one might argue that this must investment into the mobile banking sector is not worth the pay off as it is just adding small touches to the overall banking experience on the larger scale. But it is these smaller touches which go a long way into building long term customer loyalty and confidence.

Statement of the Problem

Ujjivan small finance bank has constantly tried to improve its relations with its customers and this policy have been a keep differentiating factor when a customer chooses to make ujjivan small finance bank its preferred banking partner.

Objectives of the Study

1. Gaining the opinion about the current state of the Ujjivan small finance bank app from the current users
2. Gaining information about the percentage of mobile banking users and non-users
3. Learning about the barriers which prevent customers from using the mobile banking experience

Scope of Study

This study evaluates the degree of satisfaction that a customer of ujjivan small finance bank receives from using their mobile banking platform. It also shows what are the scalability feature that the Indian mobile banking system possesses in reference to the technology which is available to the banking partners.

This study also looks at the various hurdles which prevent a customer from gaining the full mobile banking experience, weathers it is knowledge gap or any other entry barriers.

Research Methodology

In order to carry out this study there are two methods of data collection which will be implemented.

Primary Data

Primary data is **data that is collected by a researcher from first-hand sources**, using methods like surveys, interviews, or experiments. It is collected with the research project in mind, directly from primary sources.

For this study the primary data will be collected through a questionnaire which will have multiple choice questions. This questionnaire is made using the Google forms platform and was gives to many ujjivan bank customers to fill up.

The questionnaire possesses various questions as is split into two different sections:

Section A: Questions targeting the current users of the ujjivan banking mobile app. This section will provide us with information on how we can go about improving the mobile banking experience for the current users

Section B: Theses questions are tailored for the non-mobile banking platform users. Through this section we can gain information about the various barriers which prevent them from using the application

Secondary Data

Secondary data refers to data that is collected by someone other than the user. Common sources of secondary data for social science include censuses, information collected by government departments, organizational records and data that was originally collected for other research purposes.

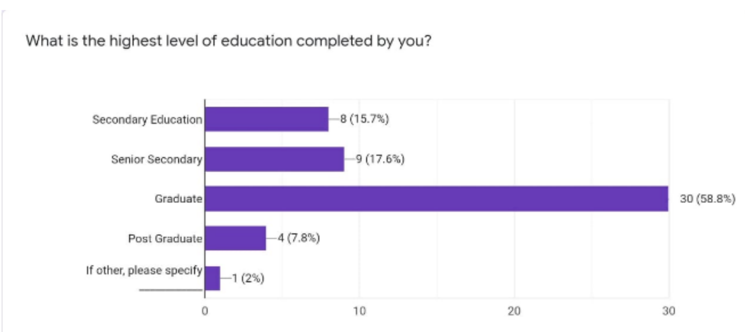
For this study we will be suing the reports and news published by various other domestic and international banks. In order to provide suggestions for the development of the mobile banking system we will be looking at the different ways there other companies' developed their platforms.

Limitations of the Study

The study is restricted only to Ujjiivan Bank customers, hence broad generalization about the impact of the mobile banking system may not be possible and the sample size is also limited which is a major restraint. Time perspective to complete the project is yet another constraint for the study. The customers mostly responded due to lack of awareness about certain technological aspects.

Data Analysis

Showing the Highest level of education completed by the survey members



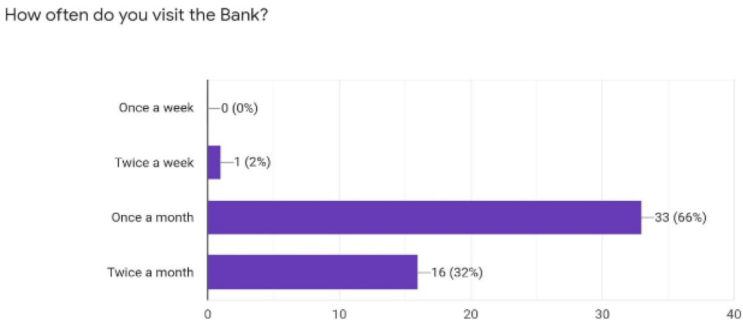
Analysis

This question is important to gauge the education level of the respondents. A higher education level reflects a good understanding of technology and the comprehension of the English language. Both of these are contributing factors to using mobile banking

Since the app is used on mobile phones predominately, it is no surprise that undergraduate students are most likely to use the app therefore they occupy the majority (58.8%).

There is a negligible difference between the 2nd and 3rd larger users of the app, that being the senior and secondary education people. These are the one belonging to what is considered as Generations Z as they are the upmost tech savvy as they are brought up with the presence of the internet

Showing the visitation patter to bank



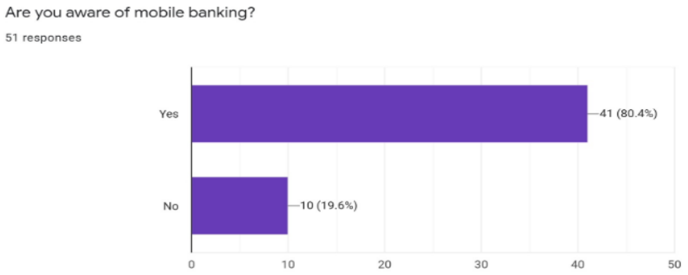
Analysis

This data is important to gauge the frequency of bank visits done by customer. They may want to visit a bank for many reasons such as depositing money etc. These are the activities which cannot be conducted via the mobile banking platform.

Ujjivan bank customer's state that they mostly visit the bank once a month as it has the highest percentage (66%). Here we can say that the mobile banking platform has assisted a lot since they can conduct various activities on the tips of their finger, this has drastically reduced the amount of visitations to the nearest bank branch.

Customers who visit the bank the twice a month occupy the next segment with (32%) And with twice a week occupying the next with 2%. We need to observe the option which has the least number of votes , which is the once a week option .zero number of customers want to visit the bank once a week which says a lot about the impact of mobile banking

Showing the awareness of the mobile banking system



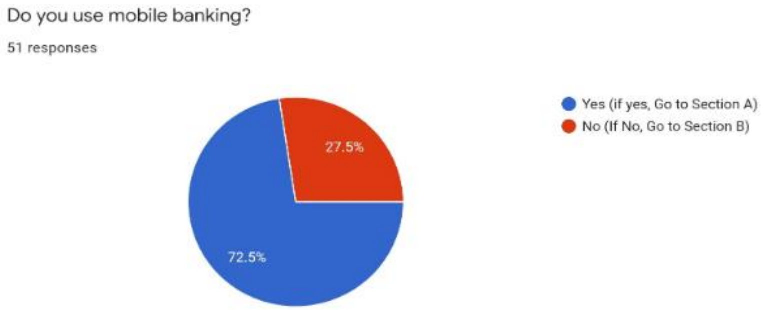
Analysis

This question is intended to show how many the customers known about the mobile banking system. Ujjivan has spent a lot of money trying to spread awareness among its customers by doing various activities such as live demos and paid advertisements. Therefore it is important to know the payoff for these awareness measures.

A majority of the respondents are fully aware about the mobile banking system as it has a whopping 80.4%. This is a good indicating factor of the mobile banking apps performance and usage as a majority of the customers are frequently using the app.

But even as the non-mobile banking segment forms the minority 19.6% this must not be ignored and must be a focus as it is vital for the entire customer to become financially literate when it comes to using the mobile banking system.

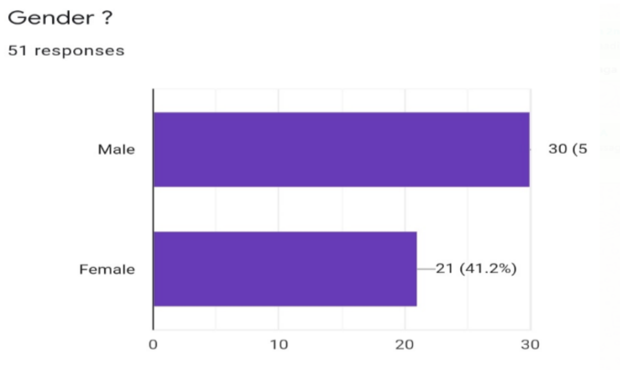
Showing the percentage of usage of the mobile banking platform



This question is simplistic yet gives one of the most vital pieces of information to this project. The awareness about mobile banking system is different from usage of the system. Many customers may be aware about the system yet they may not actively use it.

The number of users who said they were aware about the mobile banking platform was around 80% yet the number of users is around 72.5 %. This variation of users can be seen as ignoring the developments in technology or that there are other barriers which are preventing these people who are aware about the system yet they do not want to use it.

Showing the gender of the respondents



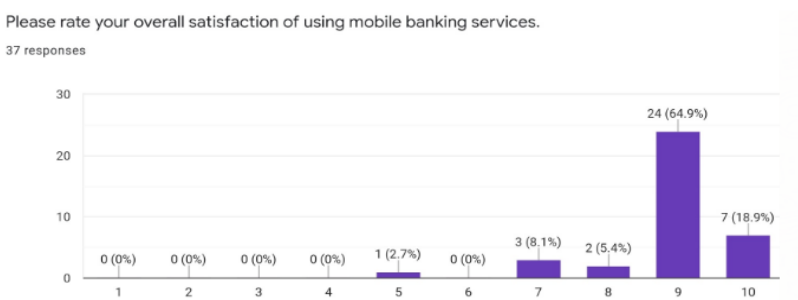
Analysis

Gender may seem like an insignificant factor when it comes to banking and especially in the 21st century when every company has taken a foothold in promoting gender equality .But in practice we still see a lot of gender disparity among the customer base.

Women tend to leave matters of financial concern to the men of the house hold because our Indian society has historically deemed it as a man’s job. Therefore we see lot of women get shunned from financial literacy or even technological literacy

But as per the data shown we can see that the women constitute nearly as much as men by making up 41.2% of the respondents

Showing the overall satisfaction of the mobile app



Analysis

Satisfaction refers to the fulfillment of a customer's wish and expectations when they are using the ujjivan mobile banking system. This graph expresses the opinion of the customer who regularly uses the application.

The ujjivan small finance mobile banking app is a relatively well received utility as most of the respondents, 64.9% in fact, have given in a rating of 9 out of 10. By this we can analyze that a majority of the customer base's opinion is on the positive side of the spectrum.

We can also see that none of the respondents have given the app a rating below 4 out of 10. This signifies that a majority of the respondents do not feel that there an any glaring problems in the mobile banking system which may ruin the customer experience entirely

We can also interpret that many of the bugs and issues which were present in the initial days of the apps launch have been solved due to subsequent software updates.

Showing the reasons for not using the mobile application

Analysis

In graph 4.4 we saw there nearly 27.5% of the respondents stated that they do not use the mobile app. though this graph we can ultimately see why these individuals do not prefer to use the ujjivan mobile banking system.

Phone support refers to the situation where the customer is keen on using the mobile banking system but their mobile phone does not have the basic requirements for allowing the apps to run. This situation arises when the customer does not use a smartphone or if their choice of smartphone is vastly outdated in terms of technological compatibility.

The lack of phone support can resolve by two methods. Either the application can be optimized to run on lower end smartphones and basic sets.

The other alternative if convincing the customer to upgrade their phone while showing them the benefits of the ujjivan apps, hence justifying their purchase decision.

Transactional risk is the fear of failure of the transaction because it was done using an electronic medium. When a customer conducts a transaction via bank branch he/she can see the transaction happening in front of them giving them visual confirmation of the transaction .This is not present when there is a virtual transaction as the customer only gets an acknowledgement of the transaction and no visual proof of it.

These issues can be solved by two methods. The first involves dispelling any myths or rumors of mobile transactions being faulty. There can be many rumors being spread by social media saying that mobile transactions are faulty. The second involves giving these customers adequate information so that they don’t feel overwhelmed when they open the mobile banking application.

Customers feel safer when using the alternative to mobile banking which is internet banking. This problem is associated with the service connectivity and performance of the app. once all network issues are fixed and the mobile platform is streamlined it should be solved.

The user interface of the app refers to the first thing they see when they open the mobile banking application. The user interface contains the homepage and also provides a list of the transaction options which a costumer can do. This concern can be solved by making the user interface friendlier to first time users.

Findings

- Most of the respondents were from a sound educational background with a majority being about the senior secondary level.
- Most of the customers visit the bank with a frequency of once a month.
- 80.4% of the respondents state that they are aware of mobile banking.
- 27.5% of the consumers state that they do not use mobile banking even though some are aware of it.
- The overall customer satisfaction of the app tends to be on the positive side since many of them gave it a rating of 9out of 10 of all the reasons given by customers for no using the mobile banking

system transactional risk fears and complicated user interface are prominent.

Conclusion and Suggestions

Suggestions to Ujjivan Bank

- Ujjivan bank need to optimize its mobile banking application so that it is available on many basic sets and older generation of smartphones.
- Ujjivan need to focus on bridging the gender disparity when it comes to mobile banking users by targeting the female customers.
- Ujjivan can streamline or simplify the homepage along with the user interface so that it is more accessible to the less tech savvy customers.
- A marketing campaign should be conducted in order to dispel any myths and rumors which customers many have in terms of mobile banking.
- Ujjian bank can split the mobile banking application into two or three separate apps. This will simplify the processes which needs to undergo to conduct transaction

Conclusion

With serving the unnerved being a key pillar in their motto Ujjivan small finance bank has prioritize the fact that they are making banking available to the smaller audience and with a smaller audience they need to prioritize customer satisfaction over everything. The mobile banking sector is one of the largest growing sectors when it comes to the Indian banking system. Mobile. Ujjivan can adopt the various developments in this technology to become one the best small finance banks in India.

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Chapter - 5

Strategies to Promote Consumer Loyalty in Internet Banking

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Abstract

Are Consumers in India like other developed countries embracing e-banking with complete vigor and zeal? This question demands a thorough research analysis before it can be answered. Access to one's accounts at any time and from any location via the World Wide Web is a convenience unknown a short time ago. Thus, a bank's electronic presence transforms from 'brochure-ware' status to 'Internet banking' status once the bank goes through a technology integration effort to enable the customers to access information the way they want.

With little difference in levels of technology among major banks, relationship building has assumed significance. However, Relationship Banking is not a new thing in banking, especially in India. Most successful managers in Public Sector Banks have thrived on the close liaison they had with their clients. A Trusted Bank Manager was almost a family member. However, the days of customer dependence on one organization for all his needs have undergone a sea change. Most Customers would prefer to choose and pick the best available alternative. The days of a committed customer are declining. Moreover the customers are now well educated and aware of the alternatives in the market. The job of banking staff becomes all the more challenging in today’s competitive scenario.

Keywords: Internet banking, consumers, financial dealings.

Introduction

In order to reap the benefits of having retained customers and gaining competitive advantage online, banks need to develop a thorough understanding of the antecedents of retaining customers on the World Wide Web, such as technology factors or personal banking characteristics. In order to investigate the importance of e- retention, the identification of variables influencing repeat purchasing behavior and word-of-mouth recommendation is a crucial area of research.

This will help banks in the areas in which they can improve. Hindrances, such as waiting for information, losing a page, having to fill out forms more than once, or needing to enter the same information in multiple places, can prompt people to switch banks and demand attention to provide an insight into baking satisfaction and retention of customers. Customers expect e-banking applications to make managing their financial dealings easier, comfortable and secure.

More and more banks are now offering e-banking facilities, to target prospective customers, i.e. to convert offline users to being e- users. The new customer sign-up process may have bottlenecks that causing prospects to drop out. After sign-up, customers may not be aware of other bank products, which limits cross- selling opportunities.

Based on the above discussion, it can be said that bank's customer loyalty online and maintaining satisfaction of the customers all the time can be considered a quite new phenomenon that has not yet received much focus. So this study will have practical value, as the findings will be used by banks as guidelines of how to work with customers in the future.

Banks borrow cash by accepting funds deposited on current accounts, by accepting term deposits, and by supply debt securities like banknotes and bonds. Banks lend cash by creating advances to customers on current accounts, by creating instalment loans, and by investment in marketable debt securities and different varieties of cash loaning. Banks offer completely different payment services, and a checking account is taken into account indispensable by most businesses and people. Non-banks that offer payment services like remittal firms area unit usually not thought of as associate degree adequate substitute for a checking account. Banks will produce new cash once they build a loan. New loans throughout the industry generate new deposits elsewhere within the system. the money provide is sometimes augmented by the act of loaning, and reduced once loans area unit repaid quicker than new ones area unit generated.

Banks offer many distinctive channels to get entry to their banking and different services:

- Automatic teller machines (ATM).
- Mail: most banks take delivery of cheque deposits thru mail and use mail to speak to their clients, Example: via sending out statements.
- Mobile banking is a way of the usage of one's cellular phone to conduct banking transactions.
- Online banking is a time period used for acting multiple transactions, payments and so on, over the net.
- Relationship managers, typically for private banking or enterprise banking, frequently touring clients at their houses or organizations.

Video banking is a term used for performing banking transactions or professional banking consultations through a remote video and audio connection. Video banking may be performed thru purpose constructed banking transaction machines (similar to an automatic teller machine), or through a video conference enabled bank department explanation.

Review of Literature

According to Mahiuddin (2020), there's no doubt that the banking industry has been greatly impacted by using the advent of the net. Today, maximum large countrywide banks, many regional banks and even smaller banks and credit score unions offer a few shape of on-line banking. at some stage in the appearance of on line banking the ones banks that offered the carrier mentioned themselves as "brick-to- click on" banks, both to differentiate them from brick-and-mortar banks that yet to provide on-line banking, as well as from on-line or "digital" banks that haven't any physical branches or tellers.

Aidonjie (2022), opines that undertaking for the banking enterprise has been to layout this new carrier channel in such a way that its clients will with ease discover ways to use and consider it. Customer agrees with this is extremely essential in an industry that handles peoples life financial savings and checking bills. Many banks ought to be cautious while imposing on line banking due to the fact they might danger losing people consider from an internet site that is too frustrating to navigate or that feels unsecured.

Andre (2021) opines that maximum of the big banks now offer fully comfortable, absolutely practical on-line banking totally free. Some smaller banks provide limited access or capability, like viewing your account stability and history; however do not offer on line transactions. As more banks have prevail online and greater customers turn to on-line banking adversarial to conventional banking, on-line banking has turn out to be as commonplace within the enterprise as using ATMs.

The general public can now be in even extra control in their money, the facts to be had and the speed this is accessed by means of the internet and mobile gadgets make it all feasible. Statistics is to be had at a click of a button and we can accomplish all our banking wishes with using the net. It isn't vital any extra to bodily go to a retail financial institution location to deposit checks, pay bills, all our credit or financial desires may be completed with the net. The time financial savings and comfort of cellular banking is now 2d nature to the present day international.

According to Mahajan (2022), Customer Loyalty The terms 'customer retention' and 'customer loyalty' are often used interchangeably in literature. Customer retention has been conceptualized as a dimension of a customer loyalty construct as shown by [Boulding, Kalbra, Staeling, and Zeithaml (1993) & Zeithaml, Berry, and Parasuraman (1996)]. Customer retention and customer loyalty are not surrogate for each other because the two terms can refer to different things. Therefore it is suggested that the conceptualization of customer loyalty and retention needs further clarification. [Thorsten (2000)]

Several studies have been made on which determinants retain bank customers [Beerli, Martin, and Quintana (2004)]. Research shows that customer satisfaction and switching costs are two main determinants, satisfaction the strongest one. Methlie and Nysveen (1999) has demonstrated that customer satisfaction and brand reputation are the most important determinants. Lewis& Soureli (2006) has stated that customer satisfaction, perceived service quality, service attributes, corporate image, perceived value, switching costs, interpersonal relationships with bank employees commitment-attachment, trust, customer characteristics and organizations efforts to make relationship all are precedents of customer loyalty. Abratt and Russel (1999) opined that customers with personal relationships are loyal to their bank

Research Methodology

The study is attempting to understand the strategies to promote E Vehicles in India. In India people are not so adaptive to changes and so it takes time for any new product or technology to capture the Indian market. EV vehicles are facing the same situation as there is a lack of charging infrastructure and the cost of vehicles is also high. Moreover, the distance limit is low and even it cannot carry heavy loads.

Objectives of the Study

1. To identify the key factors influencing Customer Loyalty
2. To find out the relation between customer satisfaction and customer loyalty.
3. To understand the relationship between effective internet banking services and customer loyalty.

Importance of the Study

Internet makes distances shrink. Once providing services on the web a bank doesn’t have to establish branches everywhere the country to achieve its customers. This alongside the automation given by the web may be advantageous from the bank’s purpose of read. At a similar time net additionally will increase the gap between the client and also the bank since the client cannot see or speak to the bank personnel. The contact between the bank and also the client becomes a lot of impersonal, which could build it easier for customers to change to a different bank.

The Internet additionally will increase the transparency, providing the client a clear stage to urge a complete read over totally different banks out there within the market.

Once providing standardized services through the web, the bank cannot differentiate the service through the looks and behaviour of the employees or the branch location. Thus it's vital for banks providing services on the web to differentiate them from competitors in alternative ways in which. Using net as a channel for banking, can somewhat amendment the stipulations of the past.

Statement of the Problem

All banks compete with each other to attract their customers in different ways by providing convenient, accessible and acceptable services and products to their customers. One of the importance’s of these services is the electronic services that have contributed vastly to increase the distance between costumers and bank. Because of some customers, electronic banking services means easier, lower-cost, around the availability, and time savings in managing of financial services, while for some customers, the complexity, risk and difficulties in accessibility might lead to not using internet banking services.

Sampling Design

Sampling is a definite plan for obtaining sample from a given population. Population: A population is the total of all the individuals who have certain attribute and are of interest to a researcher.

Sampling Method: From the population of users of internet banking services customers of Bank of India are chosen by stratified sampling. From the customers of Bank of India, internet banking users are chosen. From this homogenous group of internet banking service users, a sample size is chosen by convenient sampling.

Sampling Unit: Sampling for the study are the user of internet banking services of Bank of India.

Sampling Size: The sample size chosen for this study is 200 users of Internet banking services of Bank of India.

Sources of Data Collection

To achieve the objective of the study, a survey was conducted to collect data from the sample. In total (200) questionnaires were distributed to the customers in specific to the users of internet banking services of Bank of India. The researcher will also personally interact with the respondents to collect information.

a. Primary data was collected through questionnaire and personal interview.

b. Secondary data was collected form.

- Company Profile
- Internet

Data Analysis

Total of (200) questionnaires was collected from the customers in specific to the users of internet banking services of Bank of India and being analyzed through chart, graph and percentages. All these graphs, charts and percentages will give deep understanding of the effectiveness of internet banking services amongst the customers.

Findings of the Study

The purpose of this study was to examine of the effect of E-banking services on customer loyalty of Bank of India. This study produced several queries, and constructed several graph and charts that mirrored the relation of the positive effects between study factors. Several findings emerged that contributed to solve the study drawback, gave logical answers to the study questions, and interpreted the graph and charts.

According to objective 1: To identify the internet banking services provided by the banks in general.

- Characteristics of E-banking services demonstrated a positive result on customer value as that can be seen in various charts and graphs.
- According to objective 2: To analyse the internet banking services provided by Bank of India.
- Customer’s still now agrees traditional banking still stands the way for banking. 53% agrees to that. Online banking has few problems like security and privacy. As seen from the chart majority agrees traditional banking still more effective choice of banking.
- Customers use E-banking to check financial balance because to check financial statement of their account along with credit card statements then check balance then withdraw cash or transfer cash then depositing cash or a cheques then paying various utility bills and least being requesting for cheques books. Customers are satisfied with the services they are using.
- Maximum customers use internet banking because to know about their personal banking transactions (31%) then online bill payments (27%) and then inter account transfers (21%) and then applying for consumer loans and downloading loan applications and then about loan payment information.
- Around 33% are professional customers use E-banking services more than any other employed group people.
- Customers having higher education degree like graduation and post-graduation degree use internet banking services more with 45% and 33% respectively.
- Customer’s finds adoption of E-Banking services is high price. 52% agrees to the fact E-Banking services is high price. As in the chart seen in the analysis chapter, majority agrees to this fact adopting E-banking services is very pricey.
- Around 42% customer’s finds that the E-banking services are extremely high priced for lower end consumers. As seen in the chart majority agrees that the services are expensive for lower end consumers.
- Around 38% customers find that there is no difference in profitableness as compared to branch banking. Though majority says

there is no difference in profitableness but confusion is still there amongst the customers and the banks.

Suggestions

It is important specialize in for banks to focus on the worth that the customer generates, rather than the worth that banks can give to their customers.

Bank of India needs a lot of time to develop, and innovate new techniques to encourage their customer's mistreatment E-banking services.

It is important for Bank of India giving services electronically to differentiate themselves from competitors. They need to produce info for customers on numerous competitive services.

Conclusion

This study says that concerning (33%) of customers aged less than 30 years, while (31%) of respondents aged between (30 - 40) years. This indicates that adults with young adults are extremely willing to take up e-banking services. The study confirmed the positive effect of E- banking services on customer loyalty. Customers who are prepared to use new technology to expertise the benefits of E-banking use E-banking features more. E-banking needs more awareness of security and privacy, help customers know how the services work which will help in more number of internet banking customers.

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Chapter - 6

The Impact of Unified Payment Interface (UPI) on Small Business: A Study with Reference to Bangalore City

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Abstract

UPI, abbreviation for Unified Payment Interface is an instant real-time payment system developed by National Payments Corporation of India facilitating inter-bank transactions. The interface is regulated by the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform. As of March 2019 there are 141 banks live on UPI with a monthly volume of 799.54 million transactions and a value of ₹1.334 trillion (US$19 billion). UPI witnessed 1,029.44 crore transactions till August 2019. The mobile-only payment system helped transact a total of ₹17.29-lakh crore during the 37 months of operation starting from 2016.

Keywords:

Introduction

Unified Payments Interface is a real time inter-bank payment system that allows sending or requesting money. Any UPI client app may be used and multiple bank accounts may be linked to single app. Money can be sent or requested with the following methods: 1. QR Code: By scanning the QR code displayed at various merchant stores and confirming the amount by entering the MPIN in your UPI payments app. As per the latest UPI 2.0 version, you don't have to enter the passcode, instead, you can use signed QR & intent. 2. VPA id: You have to share your VPA id, the store will then initiate the payment process. You will receive a notification on your mobile, you have to confirm the transaction by entering your MPIN in UPI App. This type of method, you will find in E-commerce websites like Amazon or Flipkart. 3. Mobile Number: You can send money to a mobile number linked to any Bank

Account by sharing MMID. 2 4. Aadhaar Number: You can send and receive money by sharing the Adhaar Number linked Bank Account. You have to scan the fingerprint for transferring money by this process. 5. Sharing account Number & IFSC: This is a very common method of transferring money between the account numbers of different Banks. This method is used particularly when the receiving party does not use any of the UPI apps. 6. Contact Less or Audio NFC Technology: The contactless method is the most futuristic and innovative method, for transferring money using the Audio NFC Technology. Here, you do not have to share any VPA id or have to confirm any two factors authentication. Instead, an ultrahigh-frequency sound wave (Near Field Communication sensor) communicates between the two UPI enabled devices (now available only in high-end smartphones) and matching the wavelength of two devices can authenticate the money transfer. Google Pay, PhonePe mobile payments app Cash Mode works using this method. India has now crossed more than 1200 million active mobile users and mobile Payment apps are getting huge impetus after the Government of India initiated several measures to boost digital payment solutions.

Survey of Existing Literature

Pavan Duggal (2013): The book focuses on the various legal and regulatory aspects of Mobile Payment. The book further analyses the world wide legal position concerning Mobile Payment. Today, mobile phone has not just only increased productivity, it has also become a significant device in our lives. It is only natural to expect that the said device should be used for dealing with one activity in which entire human economy is based i.e. activity of dealing with money. Consequently, mobile payments are increasingly becoming an important aspect of our day-to-day existence. More and more people want to use their mobile phones for making payments on a variety of purchases that they purchase using mobile phones and on mobile ecommerce platforms. Various models of mobile payments are currently being tried. There is no one complete success story but clearly mobile payment is the way of the future. The author speaks about the various legal, policy and regulatory issues regarding mobile payments. These are issues which have a profound impact not just upon the way how we will be able to use mobile phones for payment purposes, but also the way how the mobile payment economy is likely to grow over a period of time. At a time when cyber criminals and mobile criminals are waiting for every opportunity to rob you of your moneys, mobile payment has before it various legal, policy and regulatory challenges. This book "Mobile Payments & Mobile Law" seeks to specifically look at the legal, policy and regulatory issues impacting mobile payments. It also looks at the various developments in this area in different jurisdictions and also examines the legal challenges that exist before the growth of mobile payments. Regien Wiggers (2017): The author speaks about internet changing the world rapidly, how it impacts the way we think, the way we organise our society and our daily life. This book series Understanding Internet provide insight in the working of the web and the influence on society. It helps to better direct our future. In this book we can see how the world is transferring from a financial system through papers, to a digital and online system. All banks adjusted their banking services, and some new international monetary systems were introduced, such as PayPal and bitcoin. Gerardus Blokdyk (2018): This book is actually a self-assessment to improve the understanding of the requirements and elements of NFC Payments, based on best practices and standards in business process architecture, design and quality management. It is designed to allow for a self-assessment to determine how closely existing management practices and procedures correspond to the elements of the self-assessment. Even a person having limited knowledge of NFC Payment can quickly review existing operations to determine how they measure up to the standards. This book enables businesses to address common challenges with 17 best-practice templates, step by step work plans and maturity diagnostics for any NFC Payment related projects. Marc PASQUET, Joan REYNAUD, Christophe ROSENBERGER (2008): This paper deals with (Information Technology for European Advancement) Smart Touch project whose one of the objectives is to use NFC mobile phones for a secure payment. An experience in real conditions has been carried out at Strasbourg in France, in 2007. This trial is the first experiment of a NFC-based payment application that fully supports the international EMV standard and the PayPass program. The main focus in this paper is on the security analysis which can occur in a NFC mobile phone payment. The security concepts as a major issue in this scenario is presented in the paper. The main requirement is to have the same level of security as standard EMV payment transactions. The methodology of the payment application and its communication with the payment terminal through a NFC link is described. The last part of this article presents different research perspectives to overstep the encountered problems. Skip Allums (2014): According to this, consumer purchases with mobile phones are on the rise. The book shows practical experiences on how to make a payment app more secure, compelling and reliable. This book shows product managers from startups to financial institutions on how to design mobile payments that not only safeguards identity and financial data, but also provide value added services that exceed customer expectations. This book helps us to learn about major mobile payment frameworks: NFC, cloud, and closed loop. It also examines the pros and cons of Google wallet, PayPal and other payment apps and the various additional services like points, coupons, offers etc.

Research Methodology

The objectives of the study are to identify the challenges faced by businesses while making use of UPI. To enquire about the increase in customers with introduction of UPI. To understand the ease and reliability of UPI apps. To study the volume of UPI transactions on a daily basis. To study the value of transactions on a monthly basis. The study is basically conducted in the city of BANGALORE. Kodialbail, Hampankatta, Kankanady areas have been selected for survey and research. BANGALORE being one of the fastest growing non metro cities has openly welcomed one of the best alternatives for cash that is, UPI. The future is cashless and UPI is the way to go. The study has been carried on the businessmen making use of UPI payments. The small businesses include supermarkets, grocery shops, bakeries etc. materials and methodology of the study includes the following. UPI is a fairly new and rapidly growing mode of payment that is seen in the city of BANGALORE. The study is based on both primary and secondary data. The following are the sources from which the information has been collected. Primary data is also called as raw data. The primary data was collected through personal interview with the owners of the business through with the help of questionnaire. 15 In this a purposive sampling was done with the sample size of 25 respondents within the boundaries of BANGALORE city. Secondary data is the data which is second hand in nature and not collected by the investigation directly from the field. They are the data which are borrowed from the others who have collected them for other purpose. The secondary data for the purpose of study was collected from the internet, websites, textbooks, journals.

Findings

As per the study all the businesses surveyed were making use of UPI apps. According to the study majority of the merchants are making use of all the UPI apps whereas some have preferences in using apps. Majority of merchants were making use of the apps for more than a year while some have only started the use for 2-6 months. Majority of the Merchants came to know about UPI apps through the agents appointed by a particular app. In most of the cases it was Phone Pe agents who were responsible for setting up UPI QR codes in shops whereas 12% came to know from word of mouth and 8% from print media. There is huge potential for UPI in BANGALORE and it can clearly increase turnover of merchants once properly implemented. 60% say there’s increase in turnover whereas 40% say there’s no change. Around 60% of the surveyed received more than 30 transactions in a day which shows the customers shift toward UPI payments. Since the survey was conducted on small business which weren't identical in nature, each business showed different amount of earnings in a month. Server issues can be recognised as one of the biggest problems of UPI payments. Around 72% of the surveyed businesses have faced server related problems. According to the study 60% of the surveyed strongly agree that UPI apps are safe and reliable. The others who disagree with this statement have not got the hang of the app yet due to short period of use. Just like server issues, payment delay is another temporary problem faced by merchants which can be fixed by bug fixes. Around 60% have encountered payment delays. UPI is deemed to be a safe app and none of the surveyed have been on the end of hacking. Mixed responses were received when asked if UPI can prove to be a perfect alternative for cash. 56% said YES whereas 44% said it cannot replace cash easily. Only 8%, that is 2 out of the 25 surveyed received message showing transaction success but have not received the money. This problem may be fixed with constant updates. The merchants have never faced problems with the UPI PIN of the apps. 50 Around 90% of the total surveyed strongly agree that UPI apps are fast and reliable and remaining 10% too agree to this statement. A perfect 100% of the surveyed said that UPI have never charged any extra amount on transactions. Around 80% of the surveyed said customers have never faced problem with scanning of QR code whereas 20% said some customers find it difficult to scan QR codes. This problem may even be because of camera in the phone used by customers. Around 80% of the surveyed merchants told they would recommend this app to others, on the other hand 20% disagreed and said it is not an app worth recommendation. The average age of people making use of UPI apps are between the age groups of 15-25 which includes school as well as college students. More than 75% of the merchants have received or made use of offers from the app but the remaining are not aware of the offers available. Around 60% of the surveyed have made use of the app and received cashbacks but 40% are either unaware of this feature or have neglected it. There is clarity that the numbers of people visiting the shops have increased due to the introduction of UPI, but still 36% feel that there hasn't been any increase in the number of people visiting the shops.

Conclusion

BANGALORE is one of the fastest growing non metro cities and it is important to step up and move towards a cashless economy. UPI is set to become a trillion-dollar industry and contribution from these cities are vital for its growth. The merchants of BANGALORE have opted for this change as it is fast, reliable and secure and most importantly the most suitable alternative for cash. People no longer have to hold cash in their pockets as your smartphone can do the job for you. Another reason why merchants have opted for this is because one QR code is readable for payment by any of the UPI app the customer has. The main users of this app are students from colleges but the adults have also started using the app in recent times. UPI is one for the future and we can say that majority of people from BANGALORE have said yesto the future. The survey was conducted on heterogeneous small businesses carrying out all kinds of business from stationery to bakery to juice stalls. According to the nature of the business the amount of transactions in a day and value of transactions in a month varied. The study has shown that majority of the merchants have been using the apps for a long time now and are in favour of the app. They agree that the app is user friendly and fast and reliable alternative for cash. Majority of the businesses have got to know about the app from UPI agents and a few from word of mouth and print media. UPI agents seem to follow up on issues and have also responded to problems faced by the merchants in due course of business. Continuous use of UPI can really increase the turnover of merchants in the long run. Merchants have encountered server issues and payment delays but these are all short term problems and will hopefully be solved with upcoming updates and bug fixes. But UPI is a safe app and merchants have never faced hacking issues or threats from third parties. The UPI PIN and phone PIN is secure enough to protect the bank account details of the merchants. Merchants have also received cashbacks and offers from the app but not all of them have made use of this value added service provided by the app. Introduction of UPI has certainly increased the value of sales and has also increased the numbers of customers visiting the shops. College and school students are the ones who use this app the most for making payments and they can make payments even if they don't have cash with them. Overall the benefits of the app clearly seem to exceed the limitations of it. So it can be considered as a perfect alternative for cash with a view of making this economy a cashless one

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Chapter - 7

A Study on Electronic Payments in the Present Scenario and Its Future Prospects in India, with Special Reference to Google Pay, Phonepe and Paytm Services

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Abstract

Electronic payments are financial transactions made without the use of paper documents such as Cheque. Electronic payments include debit card, credit card, smart card, e-wallet, e-cash, electronic Cheque etc. E-payment systems have received different acceptance level throughout the world; some methods of electronic payments are highly adopted while others are relatively low. This study aimed to identify the issues and challenges of electronic payment systems and offer some solutions to improve the e-payment system quality. Electronic payment system is a mode of payments over an electronic network such as the internet. In other words we can say that e-payment is a method in which a person can make Online Payments for his purchase of goods and services without physical transfer of cash and Cheque, irrespective of time and location. Electronic payment system is the basis of on-line payments and on-line payment system development is a higher form of electronic payments. It makes electronic payments at any time through the internet directly to manage the e-business environment.

Introduction

Electronic or digital payment is a financial exchange that takes place online between buyers and sellers electronically without the use of actual cash or money. Upon completion of the presentation, you will be able to understand the concept of electronic payment system and its security services. Electronic payment system is a mode of payments over an electronic network such as the internet. In other words we can say that e-payment is a method in which a person can make Online Payments for his purchase of goods and services without physical transfer of cash and cheques, irrespective of time and location. Electronic payment system is the basis of on-line payments and on-line payment system development is a higher form of electronic payments. It makes electronic payments at any time through the internet directly to manage the e-business environment as business is moving from face-to-face trading, mail order, and telephone order to electronic commerce over open networks such as the Internet, crucial security issues are being raised. Whereas Electronic Funds Transfer over financial networks is reasonably secure, securing payments over open networks connecting commercial servers and consumer workstations poses challenges of a new dimension. This article reviews the state of the art in payment technologies, and sketches emerging developments. Keywords Electronic commerce, payment systems, opens networks, secure transactions, security, and privacy. Introduction Since the dawn of history, there has been trading between two parties exchanging goods face-to-face. Eventually such trading became complicated and inconvenient; money was invented so that a buyer could acquire something he needed from a seller without necessarily exchanging goods. Security of the monetary systems was guaranteed by the local, regional, national, and event. The demonetization resulted growth in digital payments. With the government initiative such as Digital India and increased use of mobile and internet are means to exponential growth in use of digital payment. This transformation towards electronic or digital payments benefits in more transparency in transactions which empowers the country's economy. In recent days many changes took place in the payment system like digital wallets, UPI and BHIM apps for smooth shift to digital payments. India is going to became cashless. Indian government launched digital India Campaign to reduce dependency of Indian economy on cash and prevent from money laundering. To making cashless India and increasing trends in using digital payment system various Payment methods are emerging and developing. India is developing country and maximum area is rural and shocking is computer literacy is only 6.5% then question arises that implementation of digital payment system. The research paper is making focus on the problems of digital payment system in India and effects of the system in people and economic system of India. The research is paper also trying to explain the future scope of the Digital payment system.

Review of Literature

Ridam Verma and Dr. Rishi Manrai (2019), in their study about "Digital Payments" stated that as digital transactions are making an unexpected surge due to growing online payment offerings in India. The study determines the level of awareness and the perception of the customers towards digital payments. The study also explains about the services which are offered by digital payment services for the certain kind of users and it gives a detailed description of preferences of users with regards to mods of digital payments. Due to demonetization, the usage of digital payment modes had increased and it is better option to cope up with this critical condition of shortage of cash in further coming years. The payment system requires end user to have a basic knowledge of smart phones/normal bar phones. It is very important to find out the critical factors which lead to acceptance of digital payments by the customers and common masses. This also means that the aim of the study is to list out the factors that are barriers to the adoption of e-wallet in India.

Dr. Ajay Pratap Yadav & Dr. Awadhesh Kumar Tiwari (2018), in their journal on "Analysis of Impact of Demonetization on Digital Transactions in India" stated that Demonetization of Rs 500 and Rs 1000 currency notes in India provided a fillip to the change towards digitization of transactions. Though, the overall success of demonetarization is still a debatable subject in academic and professional galleries. The present study focuses on the analyzing one of the objectives of demonetization that was to accelerate the growth in digital payment mechanism thereby shifting towards cashless regime. The findings of the study reveal that during the study period of 22 months, there has been a shift towards digital payment mechanism in post demonetization phase.

Dr. Chhavi Jain (2018), in his article about "Digital Payments and Demonetization" stated that Demonetization's unexpected announcement and prolonged cash shortages created an increase in digital transactions across the country. Digital transactions can be done through banking cards, USSD, UPI, Mobile Wallets, prepaid cards, POS, Internet banking, Mobile Banking, etc. Benefits of internet banking for customers include ease of operation, convenience, available for 24x7, fast and efficient, safe and secured mode, specialized services, transaction from anywhere and transaction from any device with internet access. This paper studies the impact of demonetization on different age groups and payment modes. From the study it came out that banks need to launch special digital promotion programmer for people in order to make India – digital India.

Mahasweta Roy (Dutta) &, Arindam Das (2018), in their article about "Impact on adoption of digital banking services in India: a case study in rural and suburban area of West Bengal" stated that It has been observed that though rural and urban people have a noticeable awareness about the demonetization process but the percentage of users for all categories of DBS (card, internet and mobile) are very high for the urban sector than the rural sector. The rural people are found to be more convenient to use card banking (percentage of only card banking facility users is 63.00%) than the other two categories of DBS (internet and mobile banking). This study indicates that bankers and service designers should organize different campaign and hand-on training that may inspire people for adopting DBS and moving India towards 'Digital India'.

Dr. S. Vasantha & Dr. S. Meena (2018), in their article about "Influence on Mobile Payment Adoption & Cashless Transaction" stated that Demonetization has brought a lot of transformations in the Indian history. The government of India has been brought a different kind of digital initiatives to convert our society into cashless one. The emergence of technology, growth of smart phones and digital payment made the online transaction easier. Immediately after demonetization, digital transactions have raised significantly. Certainly, disturbances in the digital space have not only brought revolutionary changes but also made the people to practice cashless transactions through e-payments and mobile wallets to handle with the cash crunch.

Gokhan Aydin [2015] discussed the importance of mobile wallets and also some factors that had a positive effect on the users in using these wallets. Some of these factors are perceived ease of use, compatibility, usefulness etc. It was concluded that the easy usage of mobile wallets is the most important factor that affects user's attitude. So, this factor must be focused on in order to increase the use of mobile wallet system and its adoption among non-users.

Objective of the Study

- To know about the advantages of the Electronic Payment
- To highlight the types of the Electronic Payment
- To Study the various models of Electronic Payment.
- To know the respondent's perception towards Electronic Payment

Research Methodology

The present study is descriptive in nature and it attempts to know the attitude, perception of the customers in regard to the online payment systems. A sample of 100 Urban and Rural people has been taken for the study. The respondents are selected by using random sampling technique. For the purpose of the study both primary and secondary data were used.

Sources of Data Collection

Primary Data: Primary data has been used by me in the form of

Questionnaire & Observation, which are the basic methods of collecting primary data.

Secondary data: The secondary data has been collected with help of e-books magazines, research article, newspapers, e-journals research journal, and the primary data collected through well-structured questionnaire through Google form using online source medium.

Sampling: The research was designed to achieve the above mentioned objectives and the following tools were used to collect the required data.

Sampling method: A sample is considered during a research when the size of the population is very large and a set is chosen to represent the whole population, this set is called a sample is a representative of the population under study.

Sampling frame: The sample frame represents the groups of respondents that were contacted during the survey it also represents the profession of the respondents that were connected for data.

Sampling technique: To carry out this project Convenience technique has been used Sample Size the total sample size for the data collection for the research was 100 respondents.

Tools for data collection: Structured Questionnaires were the tools for data collection. The Questionnaire was neatly designed and constructed for the purpose in line with the objective of the study. Research instrument the researcher has used a well structure questionnaire as a research instrument tool which consists of open ended questions, multiple choice questions etc. all the questions in the questionnaire are designed in such a way that produces all the relevant information that is needed for the study.

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Research instrument: The researcher has used a well structure questionnaire as a research instrument tool which consists of open ended questions, multiple choice questions etc. all the questions in the questionnaire are designed in such a way that produces all the relevant information that is needed for the study.

Analytical tool

- Questionnaire
- Tables, paragraph, charts
- Statistical analysis

Limitations of the Study

- The Present study is restricted to Bangalore City only
- 50 Respondents only has taken for the survey purpose
- The research data conducted only through direct interview and questionnaire
- Due to rapid changes the research results or outcomes available after the specific time period seem irrelevant or meaningless.
- The research was conducted within a limited duration. So a detailed and comprehensive study could not be made.
- The findings and conclusions are based on knowledge and experience of the respondents sometime may subject to bias

Findings

- Majority of the respondents are Female (51%), from rural area (68%) belonging to the age group of 20 years to 30 years (84.47%) & are unmarried (82%). Their educational qualification is Graduation (54.37%) and they are dependent on others for their personal finances (55%).
- Respondents confirmed the usage of Phone pay (49.16%) since 1-2 years (29%) for the purpose of Money transfer and for booking Movie Ticket (36%) through this app
- Majority of the respondents use others apps (57.28%) and are also satisfied quality services provided by these apps. (64%).
- Majority of the people responded that they are using these apps on regular basis (56.32%), are satisfied using them (56.32%) but do not have Paytm Bank Account. (76%)
- Majority of the respondents show that monthly bill payment (water, electricity etc) services using these apps. (37%)

- Majority of the respondents use Phonepe in promotional activities (45.63%).

Suggestions

- Digital payment services across the country faces a major issue of lack of awareness regarding their benefits and uses. Majority of Indians are still reluctant to use digital payments because of security and safety issues. The digital payment companies must take important steps to gain their customer's trust. Measures such as efficient and effective customer care services, 3-D or OTP security, data back-up system etc. Can be taken to increase awareness among people.
- There is an urgent need for a safe, trustworthy, flexible, cross platform, official mobile wallet applications in order to gain consumer's trust to face the liquidity crunch in the economy. Consumers still do not have trust in online payments because of the increasing incidence of fraud cases and internet theft as use of the Adhaar card is not mandatory. Digital payments need to be made as prejudiced vehicles for convenient cash transfer, and if the government is pushing for a cashless economy, as vegetable and fruit sellers have now started accepting payments through wallets. Government should take steps to ensure people of India that there will be no online theft and their money will be secure in their wallet
- Limited amount can be transacted or transferred through m-wallets which is a part of digital payments mode in a month which hinders the Indian digital payments market. Mobile wallet companies should increase the limit of number of transactions and transaction amount even in the case of basic account
- The regulatory policy of the digital payment industry is quite cumbersome and involves inflexible and complicated terms and conditions which make it difficult for companies to decide whether their product needs RBI approval or not. Crystal clear policies and a common regulatory body for all digital payments are required. The existence of such body would bring clarity in procedures between the major digital payment layers and the RBI.
- The digital payment operators should focus on bringing new and innovative offers so as to attract more and more consumers and people to adopt the digital payment modes and strategies this would attract customers and bring in more diverse group of peoples thus

making the digital payment modes more diversified and versatile

- Digital payment modes such as e-wallets, unified payment interface (UPI) are not compatible with all type of operating systems, they are only compatible with one or few operating systems therefore there is a need for technological advancement by the e wallets so that they become compatible with all operating systems and they do not have to pay extra money every time to launch their application on a new platform. They must develop a common platform to save money and time. This would ultimately result in reduction in cost and expansion in user base and revenue.

Conclusion

The use of these apps for making online payments has made a huge growth in few years. The number of users using these apps is increasing significantly day by day. The wallet facility of these apps attracts a lot of users. The authors analysed that among the three most popular payments apps used in India namely, Google pay, Phonepe and paytm, Google pay is highly preferred for making high value transactions as it makes payment directly from the bank account as compared to other apps. More security features need to be added to increase the user base further in future. Digital payments not only helps individual to payments or receive money it also performs multiple functions such as giving reminder about dues of any kind of payments to be made, it given various offers to the user and its saves a lot of time, as per the initiative taken by the government of India to make a digital india and due to the increase in Smartphone selling and availability of internet at a high speed and at an affordable price this is one of the core factors for consumers to adopt the digital payment system as everything can be done at our finger tips and we don’t need to go anywhere to use it. In the near future there will be more increment in the usage of digital payment system and definitely the digital India mission will be highly successful.

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Chapter - 8

A Study on India Driving towards Cashless Transaction

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Abstract

Cashless economy is the term that everyone uses to describe the situation where the flow of cash does not exist within the economy. All the transactions take place through electronic channels. Going cashless eases, one's life. It also helps formalize the transactions. Further, it helps to curb corruption. And, the flow of black money that results in an increase in economic growth. This paper gives the overview on India driving towards cashless transaction.

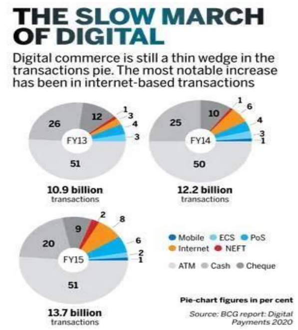
Keywords: Cashless Transaction, Covid Pandemic, Transaction, Economic Growth.

Introduction

Cashless economy is the term that everyone uses to describe the situation where the flow of cash does not exist within the economy. All the transactions take place through electronic channels. Going cashless eases, one's life. It also helps formalize the transactions. Further, it helps to curb corruption. And, the flow of black money that results in an increase in economic growth.

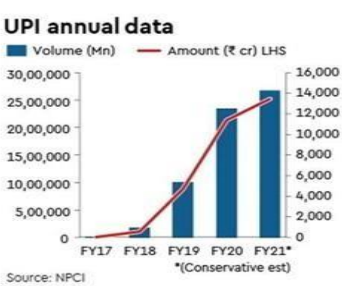
Presently, in the circumstance of this worldwide Covid pandemic. Individuals of all heights got to be aware of the advantages of money less monetary exchanges.

Large numbers of us from the occasions of Lockdowns and till now are hesitant to utilize the money notes. Also, we will often clean them when we arrive at our homes. Since we as a whole dread that this cash might convey the infection, and that is the reason we would rather not use it.



This are different means by which individuals can make installments and make any exchange without utilization of fluid money and by using these channels of credit simply partitions the public influence expects to move towards a credit just economy. So a reliably growing number of monetary exchanges should be possible through different procedure for segments other than utilization of fluid money. Assuming we look towards made nations, we find concerning the credit just economy. By a long shot the majority of the caused nations to have suitably gotten serious and move towards a money less economy and by taking on so they have been helped a staggering plan. The significant target behind moving to a credit just economy is to make all that more understood.

Straightforwardness is the best technique for limiting defilement. Without a reasonable strategy of straightforwardness, people who draw in themselves in unlawful undertakings can't be seen. India is the second most significant distance country on earth after China. In any case, according to the new report of the Income Tax Authority essentially 2% individuals of rigid individuals are finishing yearly commitment. This occupant incorporates the vast majority of the salaried workers. It shows that India is home of commitment Evaders which joins by a wide margin the vast majority of the little and medium business houses. Because of nonappearance of genuine framework to keep track on the plans the public power neglects to control them.



At this point numerous plans of installments are certifiable money. Likewise, it incredibly inciting for public ability to follow on such exchanges. That is the fundamental explanation for moving to a significant level economy and credit just exchanges so the public authority can get authentic expense pay charge pay gathering could be used for the general improvement of our country.

Consequently, we could rise to the made countries in business, Commerce, Export, Education, Infrastructure and in different fields of business. To confine the degradation in the winding obligation evaluation structure very soon, the public power will carry out a colossal improvement in Indirect Taxation through doing a solitary course of action of commitment rather than the generally tremendous number of existing roundabout costs which is comprehensively known as Goods and Services Tax (GST). Accepting there should arise an occasion of GST, filling of evaluation construction will be done absolutely on electronic stage. Consequently, there will be zero chance of obligation revolution and as such, it is by and large expected that the examination pay will be reached out by 11% of the GDP.

Table 1: Country wise percentage of cashless transaction and tax revenue collection as a percentage of GDP

Country	Percentage Share of cashless transaction	Tax Revenue Collection as a percentage of GDP
Netherlands	60	39.80
France	59	47.90
Sweden	59	45.80
Canada	57	32.20
Belgium	56	47.90
UK	52	34.40
USA	45	26.00
Australia	35	25.80
Germany	33	40.60
Korea	29	26.80
Spain	16	37.30
Brazil	15	34.40
Japan	14	28.30
China	10	28.10
UAE	8	01.40
Taiwan	6	13.00
India	2	17.70
Saudi Arabia	1	05.30

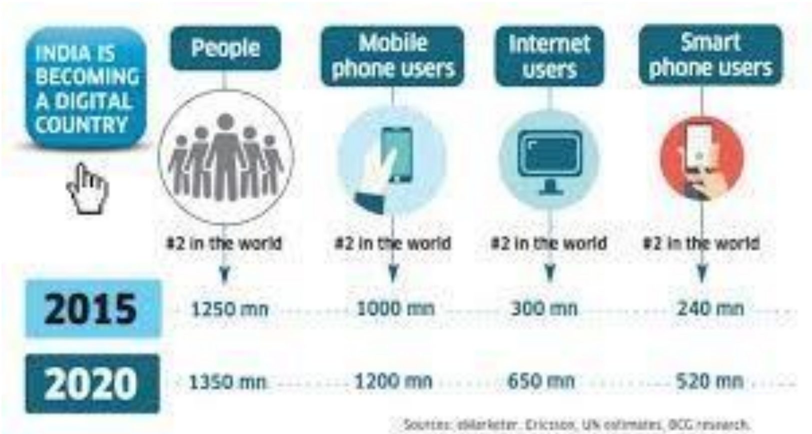
Source: Wikipedia and Master Card Advisors Analysis

Figure 1: Shows that the higher the rate part of credit just trade, the higher the obligation pay combination as a degree of GDP. This suggests that the made countries where more thedegree of acknowledge just trade as a degree of outright trades more the public power control on the business,

trade and exchange so lessen the chances of assessment evasion, more the cost pay arrangement of the public power, more the premium in system improvement and by and large progression of the country and for that they are known as developed countries yet in India more the cash trades so lesser the track of government on the trades of Business, Trade and business so more the odds of expense aversion so to extend the control the duty aversion government need to cultivate a strong Information Technology establishment to encourage a mechanized stage for passing on a wide scope of trades by a modernized infers rather than manual to keep strong track on bargain and that is only possible through moving towards a credit just economy.

The improvement towards a credit just economy is somewhat advance towards progress. The Government needs to move towards a credit just economy to make a go, Hassle free, Tech savvy and contamination free India. The debasement can be restricted just by taking on the modernized stage for every help whether assuming there ought to emerge an event of organization given by government or common business. An Overview of Cashless System Cashless economy doesn't suggest a totally setback of cash trade in the monetary setting anyway which how much cash-based trade are kept to the barest least. It monetary structures in which trades are not done dominatingly consequently of cash. It furthermore not a financial system where work and items are exchanged for work and items (deal structure). It is an economy where work and items are bought and paid for through electronic media or other than cash.

Credit just economy doesn't mean outright removal of cash as money will continue to be technique for exchange of work and items in not really far off future. It is a financial environment that limit the usage of real cash by giving diverse strategy for elective portion structure instead of changing out. The credit just economy procedure of India is planned to give a flexible portion organization by breaking the custom limits obstructing financial thought of millions of Indians and bring insignificant cost, secure and profitable money related organizations to metropolitan, semi metropolitan and rural locales the country over. This has at any rate transformed into an issue to the layman, poor, ignorant and dealers. Some e-trade destinations portrayed acknowledge just economy as one where no one uses cash, where all purchases are being made through check card, Mastercard, charge card, adaptable banking, net banking, store move or with a cash request and by direct trade beginning with one record then onto the following. In other word we can say that this requires an extensive use of PC and information development in the money related system. As per the assessment 2011 simply 6.3 percent family have PC and 3.1 percent family having PC with web affiliation so to make our country credit just and all around illuminated our organization need to cultivate a strong IT establishment without that dream of credit just India is totally unworkable.



Actually government further more give uncommon prizes through cash back for online trades with the goal that a consistently expanding number of people could become changed of such organizations. What is expect by execution of this course of action is that rather than gigantic withdrawals for influencing portions for work and items, E-wallets that outfit technique for portion close by the novel markdown on spending and that cash back can be furthermore used on next spending and portions through this wallets more less difficult than various strategy for portions. There is piles of portions structure open at present of making such portions against purchase and these portions systems are very straightforward, less monotonous, wherever accessible, much got, and especially fast yet one thing that require is a bit penchant and standard use and fundamental data on PC action.

Credit just means of portions:

1. **Cheques**: It is the most prepared technique for exchange other than liquid cash. One can make portions against his spending, obtaining of work and items by account payee check.
2. **ATM**: ATM cards are moreover called as plastic money. These cards are used for making various kinds of portions like assistance charge portions, store move, adaptable recharge, DTH recharge, web shopping, influence charge portions, telephone charge portions,

school costs, school expenses, etc This is the safe, got and trouble free technique for credit just portion, there is not a single convincing explanation to pass on liquid cash and there is exceptionally less possibility of burglary, hardship, pick reserving.

3. **Portable Banking**: It is latest and most huge technique for credit just portion in light of the fact that at present over half people of our country are using PDA. That is the explanation Indian government put more highlight on adaptable based portion structure. The customer can make various kinds of portions against their spending and move resources for other record, other bank, to their leasers .

4. **Net Banking**: It is used for getting to account from home or office for helping banking organizations like balance enquiry, hold move, opening fixed store, rehashing store account, PPF account, securing of revenue draft and for various kinds of sales like check book interest, ATM card issue and hotlist, premium assertion, TDS support and for finish of various Term store accounts.

5. **RTGS**: Real Time Gross Settlement is the primary strategy for second store move. Quite far is 2 lakh and most limit boundless. One can help this assistance of bury – bank store move.

   It is fastest technique for store move where resource is move right away.

6. **NEFT**: National Electronic Fund Transfer, a technique for between bank hold move. There is no base and most noteworthy cutoff focuses in the system. Here move of resources is picked gross reason, so it takes more time than RTGS.

7. **Sprites**: Different Bank Mobile Payment structure is another critical technique for credit just portion. It is used for between bank store move and is avoided technique for move a lot of like RTGS. The total moved gets immediately payment made to the gatherer's record.

8. **UPI**: Unified Payment Interface is the latest compact application which is used for getting to record of various records with a singular application. It is used for hold move by using VPA (Virtual Payment Address) without acknowledging account number and IFSC code of the authority. UPI based payments include Gpay,Phonepe,paytm and much more cashless payments interfaces, which support on mobile phone when ever required It can moreover

be used for making portions on Point-of-Sale terminals using virtual area. The principle advantage of this application is that one can move hold without acknowledging account number and other sensitive information of the beneficiary. In this application one can move store by using versatile number and Aadhaar card number and the aggregate get credited to the Aadhaar associated record number. This application is especially ensured, secure, trouble free and supportive.

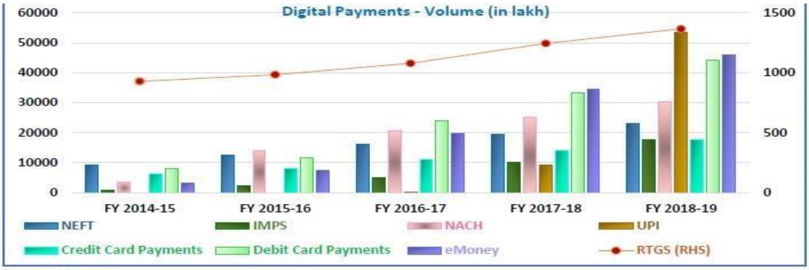
9. **E-wallets**: This is other credit just portion decision. It will in general be used in purchasing things from staple to airplane tickets. To use E-wallets customers need to have progressed cell phone with dynamic web affiliation and wallets associated with charge card, Mastercard, or net banking or one can add money to their wallets from monetary equilibriums and from these wallets the customers can make portions and besides can move resource for various wallets in an amazingly clear way.

10. **USSD**: Unstructured Supplementary Service Data is credit just portion decision for individuals who don’t have PDA and web affiliation. They can get to their records through ordinary PDA by dialing *99#. Then, USSD system will give various decisions. By following this the customer can make various trades like harmony enquiry, store move. Simply 17% people are using PDAs and rest of people are using ordinary phone. So this system will help standard phone customers as they with canning make portions using run of the mill phones. Consequently through this system they can look into credit just portion structure and can make trouble free portions.

11. **Credit Card**: It is also a critical technique for credit just portions. In Visa bank gives flashing premium free credit for 50 days. If the card holders pay their due inside due date, no premium is charged with the exception of if they disregard to pay the due inside due date, the bank generally charges 3% premium every month. Mastercard is used for various kinds of bill portions and besides for cash withdrawal up to beyond what many would consider possible gave the card on portion of specific charges on withdrawal aggregate.

12. **BHIM App**: This is the latest UPI based application. It is used for making credit just portions. This is an android based application. This application can be used through cutting edge cell phone. As

per the measurements 2011 in our country simply 3% people approach PC and web yet over 17% people approach the high level cell phones. So our organization put more complement on compact based portion structure. The rule clarification for headway of adaptable based application is to wide access.



Source: RBI Data

Statement of Problem

Study on how India is driving towards cashless transaction and their rate of dependency on the cashless transactions, how the cashless transactions have changed their lifestyle and their behavior towards cashless transactions. To understand the view and the rules they need to follow while going under the cashless transactions.

Can cashless economy cause them any advantage and disadvantage to an individual. In the future days, what can UPI based payments, online and mobile banking makes an individual or an business enterprise to follow on through their cash handling.

Research Methodology

Research methodology means the system of methods used in this research. This study is on

Study on India driving towards cashless transactions. This part it includes how and what are the techniques, sampling size and sources of data and so on are used. The following includes the detail information:

Sampling Techniques

The study adopts convenient sampling technique this is a type of non-probability sampling method. This sampling is drawn out for the group of people which is easy and simple way to choose the responses.

Sample Size

The sample size taken in this study is 50 respondents, where the google form was circulated through social media where the responses who used the

UPI and mobile and internet banking to record their experience.

Sources of Data

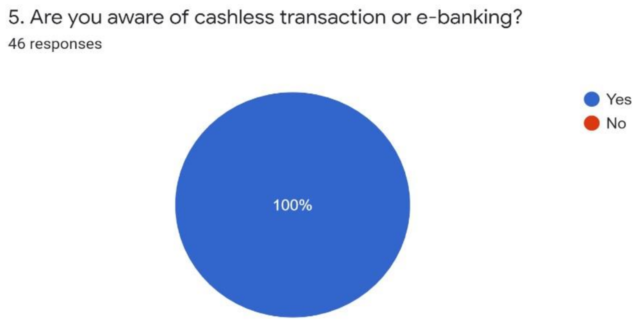
In this research the whole data is collected using both the sources that is primary and secondary data collection.

Primary data: It means the data which is directly collected from the respondents for the first time based on their view and experience from the scope on cashless transactions.

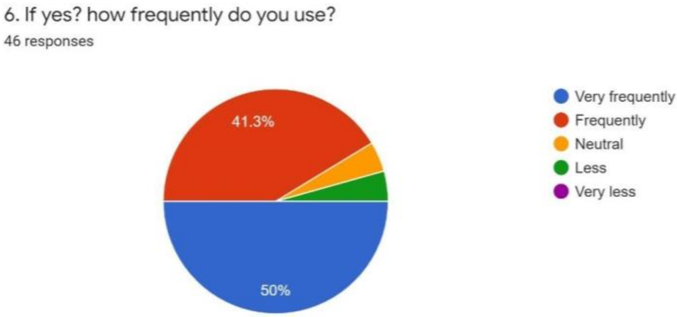
Primary data collection: Questionnaire (google form)

Secondary data: The data collected from the already available source is called as secondary date. I have taken the views and insights from the google and some reference newspaper articles of Times of India for the view on my project.

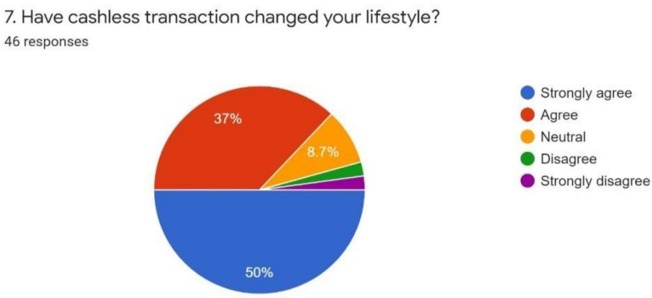
Data Analysis and Interpretation



- For the above question I have 46 responses where all the people who filled the google form were aware of the cashless transactions and E-Banking, where we can assume that there is highest rate of accuracy in the responses for the study.
- There is more scope for cashless transactions or E-Banking which tells us that people are more aware of the benefits and the opportunity for their use in their lifestyle which made their job easier.
- The cashless transactions and E-banking services are becoming more popular in everyone's life for their benefits and their trust and easiness in their life-style.



- From the above chart we can observe that people are very frequently using cashless transaction and E-Banking services which means 23 responses out of 46 responses use this UPI based transactions regularly and 41.3% that is 19 other respondents use this cashless transaction and E-Banking services frequently that means their dependency rate is also high on this platform for their easier lifestyle.
- Very less respondents that is other fore respondents use this cashless transaction and E-Banking services rarely and very rarely, in their life-style for their easiness of the time benefit.
- This chart shows cashless transaction and E-Banking services have a chance of still more scope for their usage in the banking options for getting time benefit to their lifestyle.

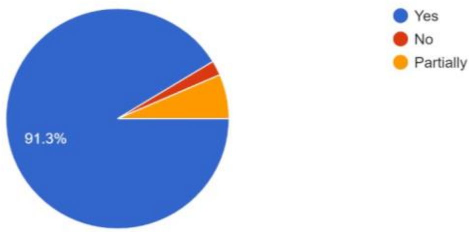


- 50% of the respondents have said that they strongly agree cashless transaction and Ebanking services and changed their lifestyle that means 23 of the responses out 46 respondents have been getting addicted to the cashless transaction and E-Banking services.
- 37% of the respondents agree that cashless transaction and E-Banking services have changed their lifestyle and 8.7% have said that only 4 respondents have neutral opinion on the behavioral

changes in their lifestyle, and 4.3% disagree and strongly disagree, which means cashless transactions have not changed their lifestyle.

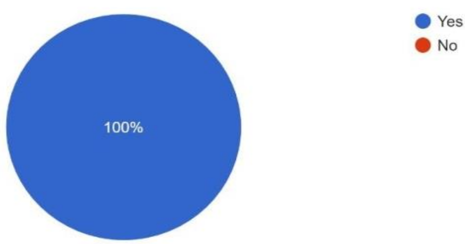
- We can draw a conclusion that more people are getting addicted to cashless transaction and E-Banking services day by day for their benefits and they are trusting this new technology.

8. Have cashless transaction made your banking experience easier?
46 responses



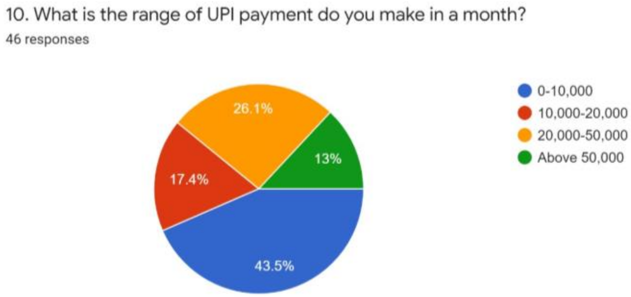
- For the above question I have received 46 responses where 91.3% of the respondents that means 42 respondents have agreed that cashless transaction have their banking experience better that is their movement to go to the banks and to wait for the banking employees responses have been reduced they can operate any where and at any time whenever necessary .
- Only 4 respondents have said that cashless transactions have not made their banking experience easier it might be because of the problems faced or the literacy level of usage of banking applications or might be they are worried about the security reasons to use cashless transactions.

9. Are you aware of UPI?
46 responses



- All the respondents are aware of the Unified Payments Interface (UPI) that is all about the Gpay, Phonepe, Paytm, and many other payments interfaces that supports cashless transactions for 24/7 which made them to transact without handling cash or going to the bank for their small financial needs rather then depositing cash to their bank accounts.

- UPI have made everyone's life easier where they are not worried about having cash every time in their hands to meet their needs and deeds in their daily routines.

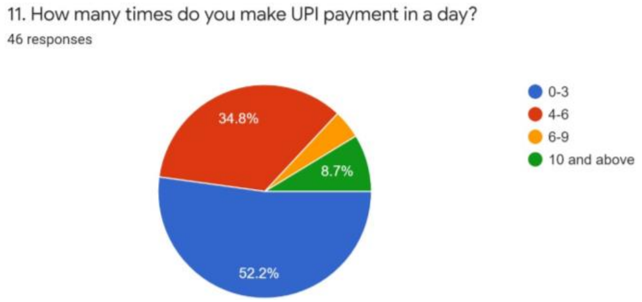


- From the above pie chart we can see that the amount or the turnover they do in a month through cashless transaction and E-banking services, we can observe that 43.5% that is 20 of the respondents use this services from the range of 0-10000 in a month which suggests that if we concentrate more we can uplift the limit by giving more options to transact and to build trust on their payments interface.

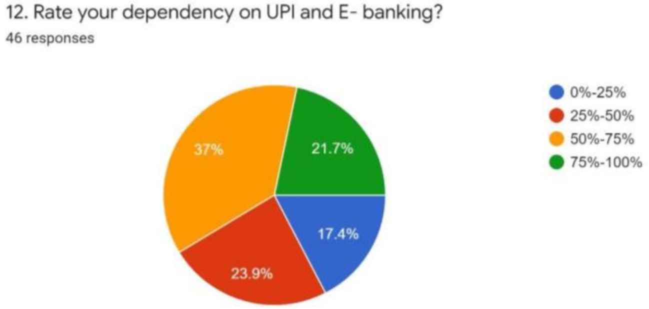
- The next range is from 10000-20000 turnover that is of 17.4% which counts to 8 respondents out of 46 respondents , which suggests their dependency rate is more then the previous set of respondents which is almost the double of their usage of cashless transaction and E-Banking services.

- The next range is from 20000-50000 turnover that is of 26.1% which counts to 12 respondents out of 46 respondents which tells us that they very rarely go the bank for transactions or else they do everything most of the time either through UPI or Ebanking services for their benefits and they get maximum benefits from these type of new services available to them at almost free of cost and at very less risk situations.

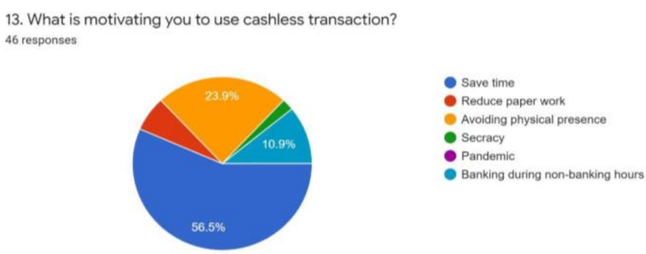
- The next range of transaction limit is above 50000 in a month where they transact almost everything through E-Banking or UPI'S ,these respondents have greater trust and faith on these technology based payments for the better experience and they carry no cash and they are always dependent on the UPI's and E-Banking services for their convenience.



- This question was asked to know the respondents frequency on the usage of the UPI payments in a day while they transact with each other for their better and easy convenience. The responses stood as below:
- 52.2% out of 46 respondents that is 24 respondents use 0-3 times in a day for transacting in their day to day usage. The next set of respondents uses 4-6 times in a day that is of 34.8% that is 16 respondents , they use a bit more than that of first set of respondents which tells us that they are more aware and more trusting more on these UPI bases payments. The next set of respondents use 6-9 times in a day that is of only 2 respondents fall to this category for their benefits where they are also most dependent on the UPI based payments and their technology for their convenience. The next set of respondents use this UPI interface for 10 or more then times ina day where it tells us that wherever they go they use this UPI interface and the spread of UPI in the places they visit is more which is benefitting them for their better support.



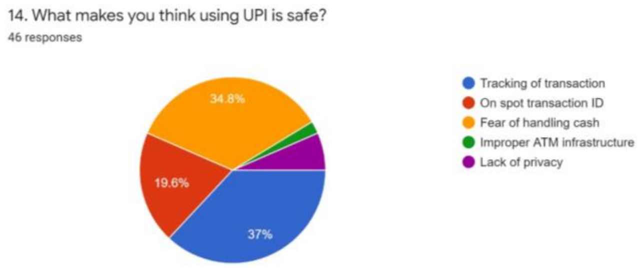
- This question was framed to identify the dependency of people on the UPI and E-Banking services that is offered by the Gpay, Phonepe, Paytm, BHIM and other online banking service transaction applications. Out of 46 responses 0-25% dependency is of 17.4% that is 8 responses dependency level is low that might be because of their literacy level or their trust issues on the technology-based interfaces. The next level of dependency of the respondents is from 25% - 50% that is 11 respondents have responded that they are not either too much dependent or completely not dependent on the UPI and E-Banking services in their life routines for their change in their behaviour. The next set of respondents is of 50% -75% that is 17 respondents dependency level is more compared to other two set of respondents. This respondents use this technology level based cashless payments to the very good extent for the benefit of their easiness. The next set of respondents are of 75% - 100% which tells us that their dependency rate is maximum and they are well aware of the technology based payment and they carry very less cash and the banking activities have reduced where they do everything in UPI or E-Banking activities according to their convenience.



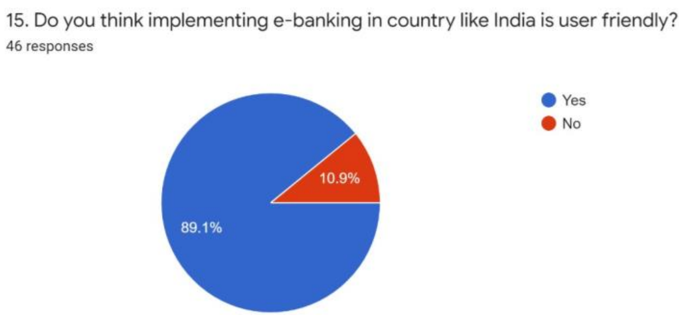
- For the above question I have received 46 responses, this question was asked in the questionnaire to know what is motivating the users or the respondents to use cashless transactions. Based on the responses I have received it is clear that people or respondents use cashless transactions to save time which that same time can be used for some other better benefitting works. 56.5% respondents that is 26 respondents tells us that this is reducing a lot of time in the finance transfer area from one to another.

- The next major reason is of avoiding physical presence which means either the presence of going to bank or the going to the receiver place to give money would be a greater difficulty and this online mode of transfer of payments made them secure as well as safeguarding the acknowledgements from them because these online payments interface have a benefit of saving the previous made transactions completely without any edits. So, people are using these cashless transactions, out of 46 respondents 11 respondents are motivated to use because of avoiding physical presence.

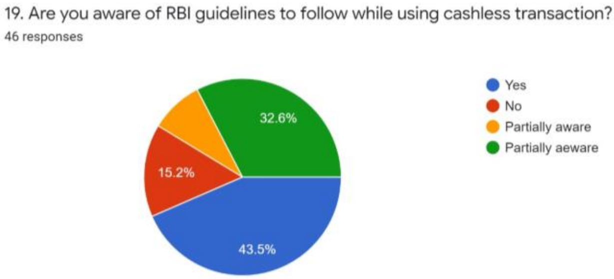
- The other reasons are reduce paper work, secrecy, banking during nonbanking hours are the factors motivating them to use cashless transactions.



For the above question I have received 46 responses, where 37% respondents say that UPI transaction is best as tracking of the transaction can be done easily at any time and at any place, 34.8% of respondents say that UPI is safe as there is no fear of handling cash as everything takes place in electronic mode, the other 19.6% respondents say that UPI is as we get on spot transaction ID, 6.5% say that through UPI there is privacy so UPI is safe for doing any transaction and the rest 2.2% respondents say because of improper ATM infrastructure we might get into trouble but through UPI it is safe.



- 89.1% of respondents agree with the statement that is implementing e-banking in country like India is user friendly that is 41 out of 46 respondents. Whereas the other very few respondents don’t agree with the statement, which means the Indian Ebanking services have to be made best and it is very user friendly with huge population because depending bank would cause many problems and much time consuming during which that should be done only during banking hours where nonbanking hours services can't be performed and if it is an emergency people would have to face a huge problem.



- For the above question I have received 46 responses out of which 43.5% are aware of the RBI guidelines to follow while using cashless transaction and 15.2% are not aware of the RBI guidelines which are to be followed and 41.3% of the respondents are partially aware of the RBI guidelines. People must be well aware of the guidelines of the RBI that includes like not to share OTP, CVV, and other details such as pin or the card details to the stranger and if shared in that causes RBI or any authority is not responsible for the money lost.

Outcomes of the Study

- People of India are getting addicted to the use of cashless transactions and E-Banking services.
- The people are depending upon the usage of the cashless transactions and the Ebanking services.
- The scope for the Indian economy to become cashless is still a chance to cover up the gap by resolving all the problems which are being face by the users.
- People have started using this type of electronic and technology-based payments regularly.
- The use of cashless payments and E-Banking services have motivated users because it saves a lot of time to the users to go to bank and their dependency on the banking timing in any emergency times.

- Implementation of still newer and updated technologies could be bought to India for better developments in the near future.
- UPI and E-Banking services has bought a lot of behavioral changes in the style of their purchase and payments and many such issues related.
- The factors affecting the cashless transactions could be because of the inefficient server capacity or the problems while scanning the QR code and much more.

Experience and Learnings

It was a wonderful experience while doing the project. And there was an orientation session held to discuss about the project and all the students were in a particular group where a separate guide teacher was assigned who has helped every student in completion of this project. While doing the project I have learnt many more thing which I was not aware as I was collecting data from different respondents it was a great experience of taking survey with experience employees and gain more knowledge. And it was very tough in collecting primary data in this corona pandemic, any way I took some basic precautions like wearing mask and having sanitizers while collecting data in different location. By the end of the completing the project I am feeling confident enough of gaining knowledge about the topic and how to make the project and what are the essential things required for the project, and how to deal with the both the sources of data. All over it was a beautiful journey on the completion of this project. It was extremely fascinating and exhilarating to work on this study as I was waiting for an opportunity to study about the emerging trends in the usage of organic products across Bangalore. It was a challenge to prepare questionnaire as the topic was about the current scenario. I would also like to tell that I learnt a lot during the study and gained a lot of information about how the cashless transaction and the E-Banking services and its scope and the rate of dependency on electronic and digital form of payments.

While conducting the research I got positive as well as negative experience. Coming to positive experience most of my friends and classmates helped me to get as many as responses possible and when coming to negative experience, I felt few people were insecure about providing the information required in the survey I also felt few of them were not accurate with their responses. The research has not been easier as I had to understand about every individual. I had to also refer a lot of websites to collect the information. I am glad that I had a guide who could help me with my doubts and helped with what I should do. I am thankful that I got an opportunity to conduct research on this topic.

Conclusion

The review presumes that cashless transactions is one of the great and solid choices of payments interface in India. Many individuals acknowledge the idea of cashless only exchanges framework. It assists with battling against major illicit or untrustworthy exercises in the economy like psychological warfare, defilement, cash laundries and so forth. In any case, fundamental issues are the working of money less exchange in India is digital illegal and illicit access of client's information. In this manner it's vital to fortify web security from assurance against online payments.

Clients and little retailers are confronted the serious level of hazard and issues in the use of E-Banking transactions. The principal reason is low proficiency rate in rustic region. Government ought to be instructed towards cash less exchanges administrations. Government attempts to advance clients mind towards the danger factors. Credit only exchange assists with fostering the Indian economy is more solid. Subsequently, each and everybody should access and utilize the computerized based exchange. The Government to require more endeavours monetary proficiency crusade time to time to make popular mindful of advantages of electronic payments.

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Chapter - 9

A Study on the Effect of NPAS on the Profitability of Selected Banks in India

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Abstract

The financial framework in India is monstrous, it takes special care of almost 80% of the populace. The RBI (hold bank of India) says the Indian financial framework is adequately all around directed and very much promoted. The country's monetary condition is obviously better than the majority of the nations on the planet. The financial area in the nation has as of late seen numerous turns of events and have been presenting new models in the nation like little money and instalment banks. The financial framework in the nation has a tremendous history, which covers the financial practices from the hour of English to privatization of banks and presently expanding numbers. Banking in India has had to deal with a lengthy excursion. The usage of innovation has brought an advancement inside the working of the banks. In any case, the essential parts of banking i.e., trust and consequently the certainty of individuals on the foundation stay a same. The main part of the banks are as yet fruitful keep with the self-importance of the investors additionally as different partners. In any case, with the changing elements of banking business brings new very risk openness. Here we can see the break down the productivity of chosen public and confidential banks, to decide the connection between Net NPA's and Net Benefits of the banks and to decide the effect of NPAs on benefits of the bank. The Non- Performing Resources (NPAs) issue is one of the foremost and most impressive issues that have shaken India's whole financial industry like a quake. It has been eliminating the financial framework from inside, similar to a blister worm, for quite a while now. It has spread like a malignant growth and attacked the financial all framework's appendages. At the full scale level, NPAs have removed the

credit supply line to the expected banks, subsequently perniciously affecting capital aggregation and stopping the country's monetary movement. At the miniature level, the impractical NPA level has disintegrated banks productivity by rising revenue pay and giving prerequisites, as well as limiting the reusing of assets prompting huge disparities in resource responsibility. Unfortunately, the elevated degree of bank NPAs unfavourably influences the financial area's productivity, liquidity, and dissolvability status. The review showed that public area banks have higher NPAs when contrasted with private area banks Subsequently, NPA ought to be brought down to concurred global norm. The banks whose NPAs are low are the one which can support over the long haul, as these NPAs adversely affect the benefit and decrease them. The effect isn't simply on benefits yet additionally has different angles which will get affected.so banks ought to ensure that the NPAs are at the most minimal or attempt to try and lessen it to zero as it draws out the greatest result level of the banks.

Introduction

The banking system in India is massive, it caters to nearly 80% of the population. The RBI (reserve bank of India) says the Indian banking system is sufficiently well regulated and well capitalized. The country’s economic condition is far better than most of the countries in the world. The banking sector in the country has recently seen many developments and have been introducing new models in the country like small finance and payment banks. The banking system in the country has a vast history, which covers the banking practices from the time of British to privatization of banks and now increasing numbers. Banking in India has been through an extended journey. The utilization of technology has brought an evolution within the working of the banks. Nevertheless, the fundamental aspects of banking i.e., trust and therefore the confidence of the people on the institution remain an equivalent. The bulk of the banks are still successful keep with the arrogance of the shareholders also as other stakeholders. However, with the changing dynamics of banking business brings new quite risk exposure.

According to a stress test carried out by the Reserve Bank of India (RBI), the Indian banking system is financially stable and resilient to shocks that may emerge from higher NPAs and the global economic crisis. Significantly, after spending US$ 6.7 billion on buying 200 metric tons of gold from the International Monetary Fund (IMF) in November 2009, the RBI has the 10th highest gold reserves in the world. The acquisition raised the share of gold holdings in the country's foreign exchange reserves from about 4 per cent to about 6 per cent. New deposits have gravitated towards public sector banks following the financial crisis. NPA means a borrower's asset or account, which has been rated as a substandard, doubtful or loss asset by a bank or financial institution in compliance with RBI's asset classification directions or guidelines. An amount owed under any credit facility shall be treated as "past due" if it is not paid within 30 days from the due date. Because of the development of payment and settlement processes, recovery environment, upgradation of technology in the banking sector, etc., it was agreed to dispense with the principle of 'past due,' with effect from 31 March 2001. Banking sectors are exposed to a range of risks such as market risk, interest rate risk, liquidity risk, borrower risk, and among those many risks the bank faces one of the most important is the risk of borrower – the risk of non-payment of the loans and advances disbursed. As a significant chunk of deposit fund is invested in loans and advances of this kind. Consequently, criteria for measuring bank efficiency have also changed. This research offers an analytical approach to the review of profitability metrics, with an emphasis on public and personal-sector banks' nonperforming assets (NPAs). NPAs reflect the Banks' results. The banks' earning potential and productivity are significantly affected by the presence of NPAs. A high NPA level indicates that there are large numbers of credit defaults that affect banks profitability and net worth. This three letter virus NPA heavily affects private and public sector banks.

Survey of Existing Literature

- Chatterjee, Mukherjee and Das (2012) in their study on non-performing assets, the outcome was that banks should control the initial reasons of the loan required by the borrower. Proper identification of the guarantor should be checked including scrutiny of his/her. Forming reasonably strict loan policies.

- Selvarajan and Vadivalagan (2013) during their Study on Management of NonPerforming Assets focused on Indian Bank and Public Sector Banks their research paper has studied that the growth of Indian Bank's lending to Priority sector is quite that of the general public Sector Banks as an entire. Therefore, the management of banks should focus towards the NPA management and take appropriate steps to avoid the creation of latest NPAs, besides making recoveries within the existing NPAs. Timely action is important to make sure future growth of the Bank.

- Sushendra Kumar Mishra and Rohit Rana(2019) in their descriptive study on the nonperforming assets of private and public sector banks explored to understand the current condition of NPA's of both private and public sector banks in India. The studied revealed that the management of asset quality of public sector is not significant when compared to private sector banks and also proves through test of correlation that there is a positive correlation of net profit and NPA of private sectors and negative correlation for the public sector banks which means private sectors banks profit increases in spite of increase in their NPA's whereas in public sector banks it is vice versa.
- Dr. Poonam Mahajan (2014), the situation of NPAs is getting better in India. Though NPAs are having a declining trend over a period, but Non-Performing Assets of public sector banks are still above private and foreign sector banks. High level management of private sector banks is more skilled, proficient than public sector banks. So, they are more capable in making plans for recovering funds from borrowers. The public sector banks are required to lend money to weaker sections of the society also, where the probabilities of recovery are very low.
- As per Reserve Bank of India (RBI) explains the definition of NPAS, "an asset makes NPA when it stops to generate revenue for the bank. Recently an asset was measured NPA stand on the concept of 'Past Due'. An NPA was examined as credit in respect of which interest of principal has remained 'past due' for a particular time".
- Siraj and Sudarsanan Pillai (2012) states in their study "NPA is a virus affecting banking sector. The study states that NPA still remains a major threat and the growing component explained through additions to this, it poses a great challenge on efficiency of credit risk management of banks in India".
- Debarsh and Sukanya Goyal (2012) stated "on effective of NPAs in the view of the public sector banks in India under strict asset classification norms, use of latest platform based on core banking solution, recovery methods and other bank specific indicators in the context of stringent regulatory framework of the RBI".
- Kavitha Nachimuthu and Veni Muthukrishna (2019) made an analysis in their study using statistical analysis to find if there is an

impact on the profitability of the Indian Scheduled commercial banks, the study was proved that the non- performing assets on the profitability have an impact on the commercial banks in India and also are affecting the world's economy from time to time which will lead to crisis around the world. From the study it is found that there was an evidence for increase in the nonperforming assets through various analysis like ratio analysis, tests of equity mean, regression analysis.

- Sharma, Preethi and Bansal, Atul (2020) conducted a study of NPA's with reference to public and private3 sectors banks proved through their hypothesis that the NPA's of private and public sector banks does not differ significantly between 2010-2015, and also reveals that the percentage of gross NPA to gross advances is more for public sector banks when compared to private banks.
- Sulagan Das and Abhijith Dutta conducted a study on the NPA'S of the Public Sector Banks in India, the objective of the study was to find out if there is any difference in the mean variation of certain banks and proved through the Annova test that there is significant variation in the means of public sector banks.
- Mayur Rao and Ankita Patel (2015) in their study of NPA'S with reference to private, public, and foreign sector banks concluded that the ratio of Gross NPA to Gross Advances of private, public, and foreign banks does have any major difference between the period 2009 – 2013.
- Chetan Dudhe (2017) studied if the profitability of the banks is affected by the NPA'S and concluded that NPA's have an adverse effected on the banking system especially public sectors banks and also suggested that the banks should adopt new recovering policies to minimize the NPA.
- Poonam Devi and Dr. Arati (2018) Pant conducted a study on the analysis of profitability of the banks with reference to NPA's of private and public sector banks from 2012-2016 and found that NPA's affect the profitability of the banks, higher the NPA higher the rate was also concluded when conducted an analysis to find the relationship between net profit and net NPA.
- Kaur, A. (2012) in her study, the income and expenditure pattern, profitability performance and NPAs position of public sector

commercial banks in India for a period of 2000-01 to 2009-10 respectively. Coefficient correlation, compound growth rate, Growth rate, ratio analysis and median test were used for the analysis. The author conclusion was that PSCBs have shown downward trends of NPAs for the period under study.

- Laveena (2016) conducted an analysis of NPS's the study period was five years 2011- 2015, through the analysis it was found that the NPA's of public sectors banks are increasing which is a major concern for the banking system and also suggested the ways to recover the NPA's like securitization, asset reconstruction and so on.
- Priyanka Mohnani and Monal Deshmukh (2013) , the research was conducted to the operational performance of selected private and public sectors banks and also to know how efficiently the banks are managing its NPA's and found that the NPA's position differs from each bank, the banks must take up necessary precautions to keep the NPA's as low as possible.
- Nitin Arora, Nidhi Grover Arora, Kritika Kanwar (2018) conducted a study on the nonperforming assets and technical efficiency of the Indian Banks to test whether the NPA's of Indian Banks have reached the danger zone and to find the level of adversity. The study noticed that there is insignificant effect on NPA's on the technical efficiency and its components.
- Dr. Manu KS and Maheshwari Rakhi (2018) conducted a research on the profitability and NPA's of development banks and through regress analysis found that the IFCI profitability is negatively affected by the NPA's the study suggested the bank to follow strict policies to avoid losses.
- Mishar and Akshay Kumar (2013) conducted a study on the trends of NPA's in the Public sector banks in India for a period starting from 1993 -2012 and concluded that the banks must be careful in lending loans to its customer.

Research Methodology

Statement of the Problem

The study tries to discuss the reasons of the NPA in public sector banks and also analyses the problems, with a suitable solution. The main subject matter of this paper is to understand the significant difference of the NPA occurrence, and management of NPA in different nationalized banks of India in respect to priority and non-priority sector lending.

Objective of the Study

- To analyse the profitability of selected public and private banks
- To determine the relationship between Net NPA's and Net Profits of the banks
- To determine the impact of NPAs on profits of the bank

Hypothesis

Hypothesis (A)

- **Null hypothesis (Ho):** There is no significant effect of NPA on the profitability of public sector banks.
- **Alternative hypothesis (H1):** There is significant effect of NPA on the profitability of public sector banks.

Hypothesis (B)

- **Null hypothesis (Ho):** There is no significant effect of NPA on the profitability of private sector banks.
- **Alternative hypothesis (H1):** There is significant effect of NPA on the profitability of private sector banks.

Scope of the Study

This research offers an analytical approach to the review of profitability metrics, with an emphasis on public and personal-sector banks nonperforming assets (NPAs). NPAs reflect the Banks results. The banks earning potential and productivity are significantly affected by the presence of NPAs. A high NPA level indicates that there are large numbers of credit defaults that affect banks profitability and net worth. This three letter virus NPA heavily affects private and public sector banks.

Sampling Design

The study was conducted for the past 6 years data i.e., from 2015-2020 (72 months). The data for five public sector banks and five private sector banks are used for the analysis of their profitability in relation with their NPA's. The public sectors banks are State Bank of India, Punjab National Bank, Bank of Baroda, Canara Bank, Bank of India, The private sectors banks are HDFC, ICICI, Axis bank, and Kotak Mahindra Bank, Yes Bank.

Data Collection Method

Descriptive research approach is followed in this research. Secondary data was collected from reports of the company. Secondary Data: Data is collected from various websites such as ibef.org, economic times, indiatimes.com, financialexpress.com, moneycontrol.com, etc. Journals, research papers, published company details to understand more about the effect on NPAs.

Statistical Tools Applied for Data Analysis

SPSS and Excel (Data Analysis) are the tools which are used to find the correlation and p-value between profitability and NPA's of the banks using correlation and regression analysis.

Limitations of the Study

- The study does not cover the whole aspect of NPA as it is focused on only selected banks.
- The information is collected only based on secondary data.
- The study is limited to the analysis of data of private and public sector banks only for six years (2016-2019).
- The profits of the banks may be affected by various elements but, this study focuses only on the NPA.

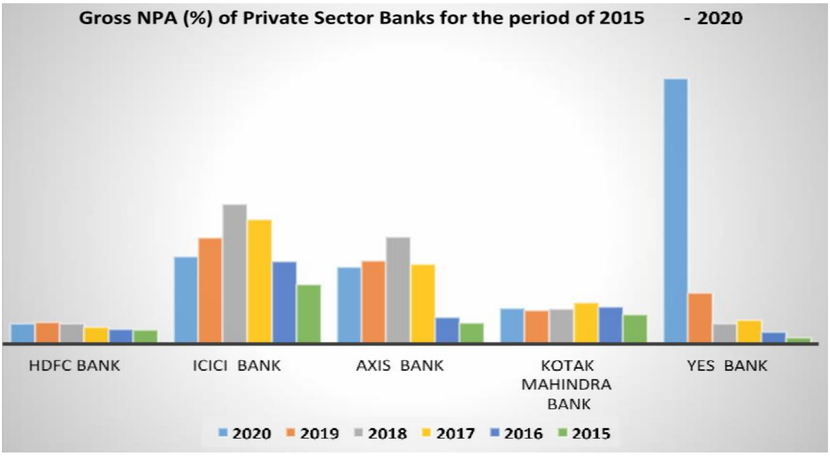
Interpretation and Findings

Table 4.1: Gross NPA (%) of Private Sector Banks for the period of 2015 to 2020

Private Sector Banks					
Year	**HDFC Bank**	**ICICI Bank**	**Axis Bank**	**Kotak Mahindra Bank**	**YES Bank**
2020	1.26	5.53	4.86	2.25	16.8
2019	1.36	6.7	5.26	2.14	3.22
2018	1.3	8.84	6.77	2.22	1.28
2017	1.05	7.89	5.04	2.59	1.52
2016	0.94	5.21	1.67	2.36	0.76
2015	0.9	3.78	1.34	1.85	0.41
Source: Secondary Data					

Analysis

The above table shows the gross NPA of the private sector banks, Yes banks show the highest NPA in the year 2020 (16.8%), Axis bank had the highest NPA in the year 2019 – 5.26%, ICICI bank showed the highest NPA in the year 2018- 8.84, 7.89% NPA of ICICI bank was highest in the year 2017, again in the year 2016 and 2015 ICICI resulted in the higher NPA rate of 5.21%(2016) & 3.78%(2015) compared to other private sector banks.



Source: Secondary Data

Interpretation

The above graph depicts the evolution of NPAs in the private sector banks from 2015 to 2020. As seen above Yes bank and ICICI bank possess the highest percentage of NPAs in the private sector. The NPAs in private sector is growing drastically which in turn is curbing the profit percentage for the banks. The banks have managed to not only maintain but instead have reduced the NPAs in the year 2019 except the HDFC Bank and Yes bank, they in turn had increased NPA for the year. In the year 2020 yes, bank had the highest

NPA and even Kotak Mahindra Bank's NPA was increased whereas all the other banks NPA seems to be reduced for the year.

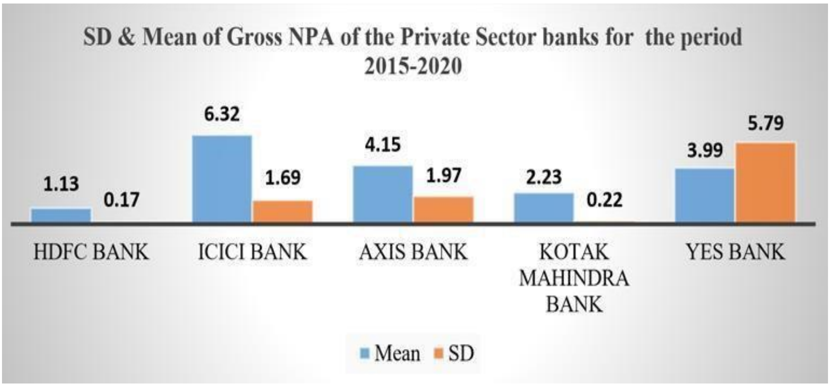
Table 4.2: SD & Mean of Gross NPA for the Private Sector Banks for the period 2015-2020

	HDFC BANK	ICICI BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Mean	1.13	6.32	4.15	2.23	3.99
SD	0.17	1.69	1.97	0.22	5.79

Source: Computed

Analysis

From the above table we can analyse that ICICI bank has the highest mean value- 6.32% and Yes bank has the highest SD- 5.79%



Source: Computed

Figure 4.2: SD & Mean of Gross NPA of the Private Sector Banks for the period 2015-2020

Interpretation

From the above graph we can see that ICICI bank had the highest mean value i.e., 6.32 and HDFC has the lowest mean value (1.13) when compared to other banks. The Standard Deviation of HDFC is lowest (0.17), ICICI is having highest SD (6.32) when compared to other banks.

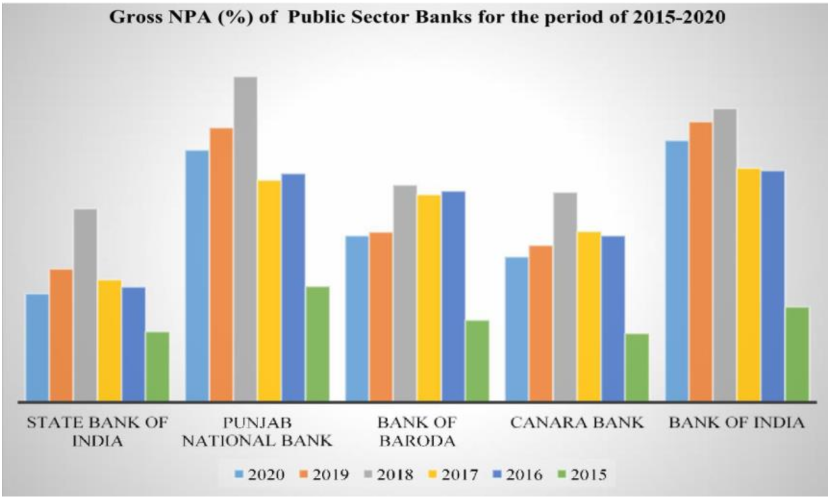
Public Sector Banks					
Year	**State Bank of India**	**Punjab National Bank**	**Bank of Baroda**	**Canara Bank**	**Bank of India**
2020	6.15	14.21	9.4	8.21	14.78
2019	7.53	15.50	9.61	8.83	15.84
2018	10.91	18.38	12.26	11.84	16.58
2017	6.90	12.53	10.46	9.63	13.22
2016	6.50	12.90	9.99	9.40	13.07
2015	4.25	6.55	3.72	3.89	5.39

Source: Secondary Data

Analysis

The above table shows the gross NPA of the public sector banks, Bank of India resulted in having highest NPA in the year 2020(14.78%), Bank of India had the highest NPA in the year 2019 – 15.84%, Punjab National bank showed the highest NPA in the year 201818.38%, 13.22% NPA of Bank Of

India was highest in the year 2017, again in the year 2016 Bank of India resulted in the higher NPA rate of 13.07%, and Punjab National Bank resulted in higher NPA in the year 2015-6.55%



Source: Secondary Data

Figure 4.3: Gross NPA (%) of Public Sector Banks for the period of 2015 to 2020

Interpretation

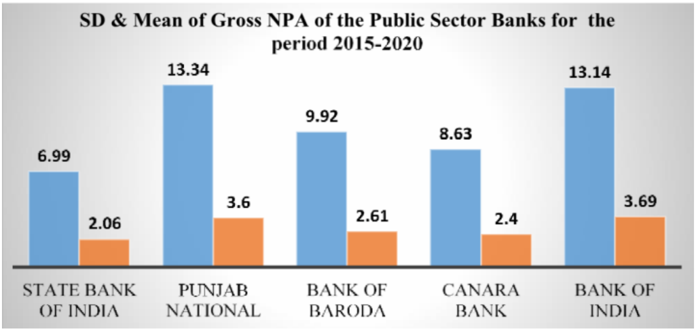
The above graph illustrates how the NPAs have emerged in the public banks in recent years from 2015 to 2020. 2018 was a big hit for most of the banks as the NPAs have raised in all of them. In the year 2019 the banks have managed to reduce their NPA to a small extend but still it needs to reduce the same and again gradually reduced in the succeeding year too i.e., 2020.

	State Bank of India	Punjab National Bank	Bank of Baroda	Canara Bank	Bank of India
Mean	6.99	13.34	9.92	8.63	13.14
SD	2.06	3.6	2.61	2.4	3.69

Source: Computed

Analysis

From the above table we can analyze that Punjab National Bank has the highest mean value- 13.017% and Bank of India has the highest SD- 3.96%



Source: Computed

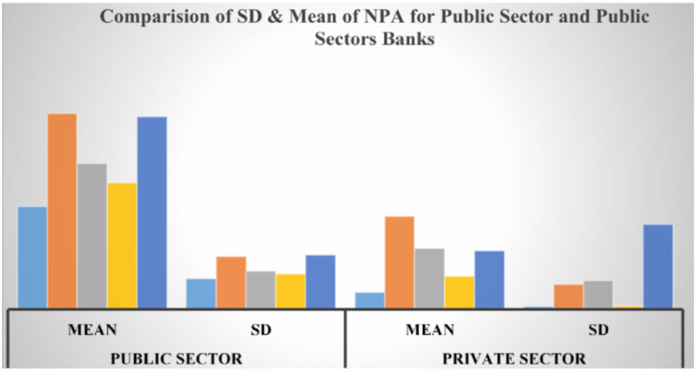
Fig 4.4: SD & Mean of Gross NPA of the Public Sector Banks for the period 2015-2020

Interpretation

From the above graph we can see that Punjab National Bank has the highest mean value i.e., 13.34 and State Bank of India has the lowest mean value (6.99) when compared to other banks. The Standard Deviation of State Bank of India is lowest (2.06), and Bank of India is having the highest SD when compared to other banks i.e., (3.96).

Table 4.5: Comparison of SD & Mean of NPA for the Public Sector and Public Sectors Banks

Public Sector	**Mean**	6.99	13.34	9.92	8.63	13.14
	SD	2.06	3.6	2.61	2.4	3.69
Private Sector	**Mean**	1.13	6.32	4.15	2.23	3.99
	SD	0.17	1.69	1.97	0.22	5.79



Source: Computed

Fig 4.5: Comparison of SD & Mean of NPA for the Public Sector and Public Sectors

Interpretation

The above graph and table show the comparison of public sector and private sector banks NPA's, which depicts that public sector banks have greater NPA's when compared to private sector banks.

- Null hypothesis (Ho): There is no significant effect of NPA on the profitability of public sector banks.
- Alternative hypothesis (H1): There is significant effect of NPA on the profitability of public sector banks.

Net NPA and Net Profits of Public Sector Banks from 2015-2020

Table 4.6: Net NPA and Net Profits of Sate Bank of India from 2015-2020

Year	State Bank of India	
	Net NPA	Net Profit
2020	51871	14488
2019	65895	862
2018	110855	-6547
2017	58277	10484
2016	55807	9951
2015	27591	13102
Correlation	-0.895	
P-Value	0.016	
R square	0.8016	

Source: Secondary Data and Computed Data

Table 4.6.shows the correlation of NPA and Net Profits of State bank of India. SBI Bank (0.895), show high negative correlation. This means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of all the bank. The P-Value of SBI is less than 0.05 i.e., 0.016<0.05 resulting in the rejection of Ho hypothesis indicating that profits of SBI got affected due to NPAs. R^2 =0.8016, which means 80.16% of variations in the profits of the bank due to the presence of NPA which generally means a stronger impact of NPA on banks profit.

Table 4.7: Net NPA and Net Profits of Punjab National Bank from 2015-2020

Year	Punjab National Bank	
	Net NPA	Net Profit
2020	27219	336
2019	30038	-9975

2018	48684	-12283
2017	32702	1325
2016	35423	-3974
2015	15397	3062
Correlation	**-0.754**	
P-Value	**0.083**	
R square	0.568	

Source: Secondary Data and Computed Data

Table 4.7.shows the correlation of NPA and Net Profits of Punjab National Bank. The correlation between the net NPA and net profits is negatively correlated (-0.754), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the Banks, P-value of PNB (0.083>0.05) is greater than 0.05 resulting in the acceptance of null hypothesis indicating that there is no significant impact of NPA on the Net Profits of the bank. R^2= 0.568, which means 56.8% of variations in the profits of the bank due to the presence of NPA , but the value 0.568 is considered to be moderate, thus there is a moderate impact on the profits of the bank due to NPA.

Table 4.8: Net NPA and Net Profits of Bank of Baroda from 2015-2020

Year	**Bank of Baroda**	
	Net NPA	**Net Profit**
2020	21577	546
2019	15610	434
2018	23483	-2432
2017	18080	1383
2016	19406	-5396
2015	8069	3398
Correlation	**-0.64**	
P-Value	**0.171**	
R square	**0.41**	

Source: Secondary Data and Computed Data

Table 4.8.shows the correlation of NPA and Net Profits of Bank of Baroda. The correlation between the net NPA and net profits is negatively correlated (-0.64), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the Banks, P-value of Bank of Baroda (0.171>0.05) is greater than 0.05 resulting in the acceptance of null hypothesis indicating

that there is no significant impact of NPA on the Net Profits of the bank. R^2= 0.41, which means 41% of variations in the profits of the bank due to the presence of NPA , but the value 0.41 is considered to be less, thus there is a minor impact on the profits of the bank due to NPA.

Table 4.9: Net NPA and Net Profits of Canara Bank from 2015-2020

Year	Canara Bank	
	Net NPA	**Net Profit**
2020	18251	-2236
2019	22955	347
2018	28542	-4222
2017	21649	1122
2016	20833	-2813
2015	8740	2703
Correlation	**-0.705**	
P-Value	**0.117**	
R square	**0.49**	

Source: Secondary Data and Computed Data

Table 4.9.shows the correlation of NPA and Net Profits of Canara Bank. The correlation between the net NPA and net profits is negatively correlated (-0.705), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the Banks, P-value of Canara Bank (0.117>0.05) is greater than 0.05 resulting in the acceptance of null hypothesis indicating that there is no significant impact of NPA on the Net Profits of the bank. R^2= 0.49, which means 49% of variations in the profits of the bank due to the presence of NPA , but the value 0.49 is considered to be less, thus there is a minor impact on the profits of the bank due to NPA.

Table 4.10: Net NPA and Net Profits of Bank of India from 2015-2020

Year	Bank of India	
	Net NPA	**Net Profit**
2020	14320	-2957
2019	19119	-5547
2018	28207	-6044
2017	25305	-1558
2016	27996	-6089
2015	13518	1709
Correlation	**-0.645**	
P-Value	**0.166**	
R square	**0.416**	

Source: Secondary Data and Computed Data

Table 4.10.shows the correlation of NPA and Net Profits of Bank of India. The correlation between the net NPA and net profits is negatively correlated (-0.645), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the Banks, P-value of Bank of India (0.166>0.05) is greater than 0.05 resulting in the acceptance of null hypothesis indicating that there is no significant impact of NPA on the Net Profits of the bank. R^2= 0.41, which means 41.6% of variations in the profits of the bank due to the presence of NPA, but the value 0.416 is considered to be less, thus there is a minor impact on the profits of the bank due to NPA.

Testing of Hypothesis (B)

- Null hypothesis (Ho): There is no significant effect of NPA on the profitability of private sector banks.
- Alternative hypothesis (H1): There is significant effect of NPA on the profitability of private sector banks.

Net NPA and Net Profits of Private Sector Banks from 2015-2020

Table 4.11: Net NPA and Net Profits of HDFC Bank from 2015-2020

Year		**HDFC**	**ank**
Net NPA			**Net Profit**
2020	3542		26257
2019	3214		21078
2018	2601		17487
2017	1843		14550
2016	1320		12296
2015	896		10216
Correlation		**0.975**	
P-Value		**0.001**	
R Square		**0.949**	

Source: Secondary Data and Computed Data

Table 4.11**.** Shows the correlation of NPA and Net Profits of HDFC Bank. The correlation between the net NPA and net profits is positively correlated (0.975), this means that the NPA is directly proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the bank, P-value of HDFC Bank is 0.001 which is less than 0.05 (0.01<0.05) resulting in the rejection of null hypothesis indicating that the profits of HDFC Bank got affected due to NPA. R^2= 0.949, which means 94.9% of variations in the profits of the bank due to the presence of NPA , the value 0.949 is considered to be high, thus there is a

major impact on the profits of the bank due to NPA.

Table 4.12: Net NPA and Net Profits of ICICI Bank from 2015-2020

Year	**ICICI Bank**	
	Net NPA	**Net Profit**
2020	101134	7931
2019	13577	3363
2018	27886	6777
2017	25451	9801
2016	13297	9726
2015	6256	11175
Correlation	**-0.08**	
P-Value	**0. 8**	
R Square	**0.0 64**	

Source: Secondary Data and Computed Data

Table 4.12**.** Shows the correlation of NPA and Net Profits of ICICI Bank. The correlation between the net NPA and net profits is negatively correlated (-0.08), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the bank, P- value of ICICI Bank is 0.88 which is greater than 0.05 (0.88>0.05) resulting in the acceptance of null hypothesis indicating that there is no significant impact of NPA on the Net Profits of the bank. R^2= 0.0064, which means 6.4% of variations in the profits of the bank due to the presence of NPA.

Table 4.13: Net NPA and Net Profits of Axis Bank from 2015-2020

Year	**Axi Bank**	
	Net NPA	**Net Profit**
2020	9360	1627
2019	11276	4677
2018	16592	276
2017	8627	3679
2016	2522	8224
2015	1317	7358
Correlation	**-0.896**	
P-Value	**0.016**	
R Square	**0.803**	

Source: Secondary Data and Computed Data

Table 4.13**.** Shows the correlation of NPA and Net Profits of Axis Bank. The correlation between the net NPA and net profits is negatively correlated (-0.896), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the bank, P- value of Axis Bank is 0.016 which is less than 0.05 (0.016<0.05) resulting in the rejection of null hypothesis

indicating that there is significant impact of NPA on the Net Profits of the bank. R^2= 0.803, which means 80.3% of variations in the profits of the bank due to the presence of NPA. The value 0.803 is indeed high which shows major impact of NPAs on profits of the bank.

Table 4.14: Net NPA and Net Profits of Kotak Mahindra Bank from 2015-2020

Year	**Kotak Mahindra Bank**		
Net NPA			**Net Profit**
2020	1558		5947
2019	1544		4865
2018	1665		4084
2017	1718		3412
2016	1262		2090
2015	609		1866
Correlation		**0.**	**67**
P-Value		**0.**	**45**
R Square		**0.**	**48**

Source: Secondary Data and Computed Data

Table 4.14**.** Shows the correlation of NPA and Net Profits of Kotak Mahindra Bank. The correlation between the net NPA and net profits is positively correlated (0.67), this means that the NPA is directly proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the bank, P- value of Kotak Mahindra Bank is 0.145 which is greater than 0.05 (0.145>0.05) resulting in the acceptance of null hypothesis indicating that there is no significant impact of NPA on the Net Profits of the bank. R^2= 0.448, which means 44.8% of variations in the profits of the bank due to the presence of NPA, but the value 0.448 is considered to be less, thus there is a minor impact on the profits of the bank due to NPA.

Table 4.15: Net NPA and Net Profits of Yes Bank from 2015-2020

Year	**Yes Bank**	
	Net NPA	**Net Profit**
2020	8624	-16418
2019	4485	1720
2018	1313	4225
2017	1072	3330
2016	284	2539
2015	88	2005
Correlation	**-0.891**	
P-Value	**0.017**	
R Square	**0.793**	

Source: Secondary Data and Computed Data

Table 4.15**.** Shows the correlation of NPA and Net Profits of Yes Bank. The correlation between the net NPA and net profits is negatively correlated (-0.891), this means that the NPA is inversely proportional to Net Profit. The P-Value was obtained by applying linear regression on Net NPA and Net Profit of the bank, P- value of Yes Bank is 0.017 which is less than 0.05 (0.017<0.05) resulting in the rejection of null hypothesis indicating that there is significant impact of NPA on the Net Profits of the bank. R^2= 0.793, which means 79.3% of variations in the profits of the bank due to the presence of NPA. The value 0.793 is indeed high which shows major impact of NPAs on profits of the bank.

Findings of the Study

- Average NPAs are less than 5 percent for the study duration of all selected private sector banks except ICICI bank.
- The total NPAs for the study period was more than 5 percent for all selected public sector banks.
- Public sector banks reported higher NPAs as compared to private sector banks. The correlation analysis of the selected banks revealed that NPA is negatively correlated with Net Profits except for Kotak Mahindra Bank and HDFC Bank Regression analysis resulted that there was significant impact of NPA on the Net profits but only in the case of HDFC Bank, Axis Bank and SBI
- In Kotak Mahindra Bank and HDFC Bank it is observed that the Net NPA is positively correlated with the Net Profits and through linear regression and it is found that the Net profits have been significantly impacted by the NPA. However, it may be ascertained that profits cannot be increased with the rise in NPAs there are also other elements which contributes toward the profits.
- HDFC bank had a major impact on its profit due to NPA i.e., it has almost 94.9% of R2 which shows the variations in the profits of the bank due to the presence of NPA.
- ICICI bank had the least impact of NPA on its profits as the variations was only 6.4%

Conclusion of the Study

The Non-Performing Assets (NPAs) issue is one of the paramount and most formidable problems that have shaken India’s entire banking industry like an earthquake. It has been killing the banking system from inside, like a canker worm, for a long time now. It has spread like a cancer and invaded the banking system's every limb. At the macro level, NPAs have cut off the credit supply line to the potential lenders, thus having a deleterious impact on capital accumulation and halting the country's economic activity. At the micro level, the unsustainable NPA level has eroded banks profitability by rising interest income and providing requirements, In addition to restricting the recycling of funds leading to significant discrepancies in asset liability. Sadly, the high level of bank NPAs adversely affects the banking sector's profitability, liquidity, and solvency status. The study showed that public sector banks have higher NPAs when compared to private sector banks Therefore, NPA should be taken down to agreed international standard. The banks whose NPAs are low are the one which can sustain in the long run, as these NPAs have negative impact on the profit and reduce them. the impact is not just on profits but also has various aspects which will get affected.so banks should make sure that the NPAs are at the lowest or try to even reduce it to zero as it brings out the maximum output level of the banks.

Suggestions of the Study

- The Reserve Bank of India should revise the monitoring policies and also the credit appraisal.
- To guarantee that clients do not divert their assets, the banks should consistently follow up on their clients.
- On a regular basis, all the credit records (Loans) ought to be investigated.
- To beat the imperfections of credit evaluation and observing, banks ought to appropriately prepare their representatives and staff.
- Banks may turn to one-time settlement scheme. DRT (Debt Recovery Tribunal), Lok Adalats and so on are the ways through which recovery of loans can be done. These days' banks are utilizing the SARFAESI Act to deal with the NPAs. (The Securitization and Reconstruction of Financial Assets and Enforcement of Securities Interest Act. This act allows banks and other financial institution to auction residential or commercial properties (of Defaulter) to recover loans.)
- An appropriate process ought to be followed before giving credit.
- Stringent of rules related to NPAs.

- Accountability, junior heads are frequently made responsible for lapse, however significant decisions are made by the Credit Sanction Committee comprising of senior level chiefs. Thus, it is imperative to make senior chiefs responsible, if PSBs need to handle NPAs.

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Chapter - 10

Impact of Monetary Policy on Banking Sector

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Abstract

The process through which a country's monetary authority regulates the liquidity of its currency and frequently sets an interest rate with the aim of fostering stability and economic growth is known as monetary policy. Official aims often include generally stable prices and low unemployment, with a focus on revenue growth to improve monetary development and security. The study of monetary theory can help you develop the best financial strategies. This study focus on the Monetary Policy's Effect on the Banking Sector.

Keywords: Banking Sector, Cash, Economic, Monetary Policy

1.1 Introduction

Monetary policy is the process by which the money related authority of a Nation controls of the flexibility of the cash, often targeting a rate of interest for the purpose of promoting economic growth and stability. Frequently focusing on a pace of revenue to advance monetary development and security the official goals usually include relatively stable prices and low unemployment. Monetary theory gives knowledge into insight into how to make ideal money related strategy. It is referred to as either being expansionary or Contractionary, where an expansionary strategy assembles the full scale smoothly all out flexibly of cash in the economy more rapidly than anticipated, and Contractionary strategy extends the cash gracefully more bit by bit than expected or even advisors it. Expansionary strategy is all the more progressively used to attempt to battle joblessness in a downturn by bringing down loan fees with the expectation that simple credit will tempt organizations into extending. Contractionary strategy is relied upon to ease back extension to staying away from the subsequent contortions and disintegration of resource esteems. Essentially the financial arrangement implies that the activity of a central bank, currency board or other guideline panel that decide the size and pace of development of the cash gracefully, which subsequently impacts credit expense. Financial strategy is kept up through activities, for example, expanding the loan fee or changing the measure of money banks need to keep in the vault. For instance, growing the advance expense or changing the proportion of money banks need to keep in the vault. Monetary policy rests on the connection between the rates of interest in an economy, that is, the cost at which money can be acquired, and the absolute flexibly of cash. Monetary policy arrangement utilizes an variety of tools to control either of these, to impact results like economic growth, inflation, exchange rates with other currencies and unemployment. Where currency is under a is under a restraining infrastructure of issuance or where there is a regulated system of issuing currency through banks which aretied to a central bank, the monetary authority has the ability to alter the money supply and thus influence the interest rate. The beginning of financial arrangement related methodology as such comes from the late nineteenth century, where it was used to keep up the best quality level.

1.2 Background to the Study

Monetary policy is one of the major monetary adjustment weapons which include measures intended to manage or control the volume, cost, accessibility and bearing of money and credit in an economy to accomplish some particular large scale of the monetary arrangement objective. It is a conscious endeavor by the monetary authority to control the money supply and credit condition to accomplish certain expansive monetary goal. Okpara (2010) characterized monetary policy as a measure intended to impact the accessibility, volume and heading of money and credits to accomplish the ideal economics objectives. Money related Policy is an instrument given to the Central Bank by the national government that is, it is a capacity which is a story way to deal with control the absolute mentioned in the stream or cost. The methodology is to see to the security in wages and expenses of items and adventures. It is furthermore imperative to control the volume of cash accessible for use and to give the homegrown cash a value by methods for various controls. It is moreover the control of cash and bank acknowledge in order to impact so as to influence total interest toward a path that would proceed to the accomplishment of good arrangement of instalment, esteem dauntlessness and opening for work. The bank is obligated for the lead of monetary policy to seek after those goal. Bank regularly certain monetary policy arrangement instruments like Bank Rate, Open Market Operation, Changing Reserve Requirements and other specific credit control instruments. Public bank moreover chooses certain destinations on financial related variables. But, a couple of targets are unsurprising with each others are not, for example, the objectives of significant worth strength frequently to routinely conflicts with the objections of credits and loan cost steadiness and high short run work. The bank all through the long haul, have started distinctive money related arrangements to related methodologies control and build up the monetary framework to accomplish major macroeconomic objections which frequently strife and result to bending in the economy. Albeit, some financial arrangement like money hold and capital prerequisites have been utilized to support the liquidity creation pattern of business banks through store base and credit workplaces to general public The financial enterprises in any economy in the planet are the fundamental zone by virtue of their ability to gather resources from the venture assets to the deficiency territory of the economy. They initiate the greatest measure of asset as a result of their ability to recognize to stores of any kind from general society, government and its associations similarly as make credit through permitting of advances, overdraft and adventure financing which are all part needs for money related execution to redesign financial turn of events and improvement The part of the banking industry being created cycle can't be over- pushed as they play unlimited limits. The primary significant financial industry in the commercial banks. Commercial Banks are bleeding edge troops concerning realizing money related strategy. Because of this affiliation, they as a social event are influenced enthusiastically by the exercises of the nation's money related approach system makers. To make advantage, Commercial banks put customer stores put client stores in different present moment and long-haul venture source, in any case focal point of such stores are used for credits stores are utilized for advances. Thusly, the more advances constantly they loosen up reach out to borrowers, the more the advantage they make (Solomon, 2014). The significant objections of monetary policy approach since 2012/2013 have been to smother expanding to a lone digit level and keep up a consistent trading scale. Has similarly been based on the prerequisite for a more serious monetary zone furnished towards improving the portion structure. The CB has moreover continued ensuring banking sufficiency and monetary area dauntlessness, not only to ensure the convincing transmission of money related arrangement exercises to the veritable region yet notwithstanding improve the efficiency of the portions system. The measures taken to sustain the financial zone and cement the increments of cash related system joined the introduction of a 13-point change plan in the financial territory in July 2014 (the focal issue of which was the 25 billion least capital base for DMBs).

1.3 Definition of Terms

1.3.1 Financial Performance

Financial Performance investigation alludes to logical devices to gauge the strength and shortcoming of a firm according to its asset report and benefit and misfortune articulation. Instances of bank financial execution instruments and proportions incorporate working pay, profit before revenue and expenses, Total Asset esteem. Monetary execution examination is completed to discover the benefit position and execution of a firm. It very well mad by the executives, proprietors, lenders, speculators as shown by Chenn (2014).

1.3.2 Monetary Policy Rate (MPR)

Minimum Rediscount Rate (MRR) presently known as Monetary Policy Rate (MPR) was utilized to flag the ideal heading of financing cost development (Nwude, 2013).

1.3.3 Deposit Mobilization

Deposit Mobilization gauges the total assembly of stores in the economy. Stores incorporate interest, time and reserve funds and currency market store account. Are ledgers that permit the proprietor of the record (lender) to make interest on banks?

1.3.4 Credit to the Private Sector

Domestic credit to private area by banks alludes to financial assets gave to the private area by other store enterprises (store taking partnerships aside from national banks, for example, through advances, acquisition of non-value protections, and exchange credits and different records receivable, that build up a case for reimbursement. For certain nations these cases incorporate credit to public ventures (IMF, 2016).

1.3.5 Loans and Advances

Loans alludes to an obligation gave by a financial organization to a specific period while Advances are the assets given by the banks, which should be payable inside one year

1.3.6 Liquidity

The capacity of a bank to meet its present commitments when they are expected and is regularly a transient obligation measures.

1.3.7 Reserve Requirement

This alludes to the extent of all out-deposit liabilities which the commercial and merchant banks are required to keep as trade out vaults and stores with the Central Bank.

1.3.8 Quantitative Directives

These are orders from the Central Banks and other financial organizations under its influence concerning the aggregate sum of cash which they may loan,

1.3.9 Financial System

The channel or direct through which the colloquialisms of surplus areas (the family unit) stream to the shortfall areas (business associations).

1.3.10 Monetary System

A framework whose primary capacity is the arrangement of sufficient supply of cash or monetary standards for example

1.4 Tools of Monetary Policy Quantitative Tools

- Open Market Operations
- Bank Rate
- Cash Reserve Requirement
- Liquidity proportion
- Special deposit

Qualitative Tools

- Credit proportioning
- Credit ceiling
- Moral influence
- Direct activity
- Advertisement

1.4.1 Features of monetary policy

- Clear principles and framework
- Transparent and examinable, steady with great administration rules
- Decisions dependent on sound principle, evading individual judgment, and effectively conveyed to the general population
- Clear duty and responsibility

- Promotion of long-term financial turn of events
- Strengthening of validity for the national bank and There economy Types of Monetary Policy.

1.5 There are three common types of monetary policy. These are:

- Expansionary Monetary Policy
- Contractionary Monetary Policy
- Unconventional Monetary Policy

Expansionary Monetary Policy

Expansionary monetary policy is the money related approach which looks to expand total interest and monetary development in the economy. It includes expanding the cash flexibly and bringing down the financing costs. The lower loan cost urges the borrowers to purchase more which expands the monetary action. The expanded financial movement prompts greater business openings consequently diminishing joblessness. It additionally expands the expansion as more cash is accessible to purchase products and ventures.

It is otherwise called Easy Money Policy or Lose Money Policy as central banks tries to expand the cash gracefully by bringing down the loan costs.

Contractionary Monetary Policy

Contraction monetary policy is the money related approach which is utilized to battle the expansion in economy. It includes diminishing the cash gracefully and expanding the loan fees. As decrease in cash gracefully builds the loan fees, the borrowers will be hesitant to get the cash because of higher obtaining cost which at last lessens the financial movement. It prompts decline in swelling, increment in joblessness and log jam in economy.

It is otherwise called tight money policy as central banks tries to decrease the cash flexibly by confining credit by expanding financing costs.

Unconventional Monetary Policy

Unconventional monetary policy is related arrangement is sought after by central banks when their customary instruments of financial strategy stop to accomplish their objectives. The one such unpredictable money related arrangement was utilized us United States after the monetary emergency of 2007 in the structure Quantitative Easing (QE).

1.6 Instruments of Monetary Policy in India

The Reserve Bank of India utilizes different instruments of monetary policy approach in India to accomplish the goals of value dependability and higher monetary development. A portion of the significant instrument or devices of monetary policy in India are:

- Open Market Operations (OMO)
- Cash Reserve Ration (CRR)
- Statutory Liquidity Ratio (SLR)
- Liquidity Adjustment Facility (LAF)
- Marginal Standing Facility
- Bank Rate
- Selective Credit Control
- Moral Suasion

Open Market Operations (OMO)

It is the way toward buying and selling of government protections, security or Treasury Bills (T-Bills) to direct the cash flexibly in economy. In the event that administration needs to diminish cash flexibly, it gives these bonds. The cash is devoured to purchase these bonds hence it diminished the financial base of the economy. Also to build the cash gracefully, the public authority sells these bonds in this way expanding the financial base of the economy. In India, the open market tasks are led by Reserve Bank of India through its center financial arrangement

Cash Reserve Ratio (CRR)

It alludes to the money which banks need to keep up with the Reserve Bank of India as level of Net Demand and Time Liabilities (NDTL). An expansion in CRR makes it required for banks to hold enormous segment of their stores with the RBI. Hence it diminishes their store accessible for credit and they loan less which influence their productivity and furthermore decreases the cash gracefully in economy.

Statutory Liquidity Ratio (SLR)

Apart from CRR, the banks in India are needed to keep up fluid resources as gold, money and endorsed protections. The expansion/decline in SLR influences the accessibility of cash for credit with banks.

Liquidity Adjustment Facility (LAF)

Under Liquidity Adjustment Facility (LAF) the banks buy cash from

RBI on repurchase arrangements.

- Repo Rate: It is the interest rate at which the Reserve Bank gives for the time being liquidity to banks against the guarantee of government and other endorsed protections under the liquidity change office (LAF)
- Reverse Repo Rate: The (fixed) interest rate at which the Reserve Bank ingests liquidity, on an overnight premise, from banks against the insurance of qualified government protections under the LAF

Marginal Standing Facility

Under SF, the planned bank can obtain extra measure of for the time being cash from the Reserve Bank by dunking into their Statutory Liquidity Ratio (SLR) portfolio up as far as possible at a corrective pace of revenue. This gives a wellbeing valve against unexpected liquidity stuns to the financial framework.

Bank Rate

It is the rate at which the Reserve Bank is prepared to purchase or rediscount bills of trade or other business papers.

Selective Credit Control

Under this strategy, the central influence the credit development in nation through after strategies:

- Specifying the edge necessities and differential pace of interests
- Regulating the credit for shopper durables

Moral Suasion

The central convinces the commercial banks to control the credit development through oral and verbal correspondence.

Why monetary policy is ineffective in India?

There are numerous purposes behind monetary policy not ready to accomplish its planned destinations. A portion of the reasons are:

Higher proportion of Non-Bank Credit

The credit market in India is to a great extent involved by non-bank credit giving organizations like cash loan specialists, cooperatives, family members, companions and so on this enormous section isn't influenced by money related strategy instrument.

Introduction of new financial instruments

Mutual Fund, Venture Capital, IPO and so on have impact on generally liquidity in the economy. The money related approach mediation by Reserve Bank of India is irrelevant in these sections of financial framework.

High currency-deposit ratio

The rural economy in India has more tendency towards the use of money. In this manner there is high cash store proportion. The money related approach just contacts the store segment. In this manner any mediation via money related strategy has manger impact on economy.

1.7 Objectives of the Monetary Policy in India

The targets of money related approach in India are value security and development. These are sought after through guaranteeing acknowledge accessibility for steadiness in the outside estimation of rupee and in general monetary security.

Following are the main objectives of monetary policy:

i. To regulate money supply in the economy

Money supply gracefully remembers both money for course and credit creation by banks. Monetary policy arrangement is cultivated to manage the cash gracefully in the economy by credit development or credit withdrawal. By credit extension (giving more advances), the cash flexibly can be extended. By credit compression (giving less advances) cash flexibly can be diminished.

The fundamental point of the monetary policy of the Reserve Bank was to control the cash flexibly in such a way as to extend it to address the issues of monetary development and simultaneously contract it to check swelling. As such financial strategy pointed toward extending and contracting cash gracefully as indicated by the requirements of the economy.

ii. To Attain Price Stability

Another significant target of monetary policy approach in India is to keep up value solidness in the nation. It infers Control over swelling. Value level is influenced by cash flexibly. Financial approach directs cash flexibly to keep up value strength.

iii. To promote Economic Growth

A significant target of monetary policy is to make accessible fundamental flexibly of cash and credit for the monetary development of the nation. Those areas which are very critical for the financial development are given sufficient accessibility of credit.

iv. To Promote saving and Investment

By directing the pace of revenue and checking expansion, monetary policy promotes sparing and speculation. Higher paces of revenue advance sparing and speculation.

v. To Control Business Cycles:

Blast and discouragement are the primary periods of business cycle. Money related arrangement puts beware of blast and gloom. In time of blast, credit is contracted, in order to lessen cash flexibly and in this manner check swelling. In time of despondency, credit is extended, to expand cash flexibly and in this way advance total interest in the economy.

vi. To Promote Exports and Substitute Imports:

Blast and discouragement are the primary periods of business cycle. Money related arrangement puts a beware of blast and gloom. In time of blast, credit is contracted, in order to lessen cash flexibly and in this manner check swelling. In time of despondency, credit is extended, to expand cash flexibly and in this way advance total interest in the economy.

vii. To Manage Aggregate Demand:

Money related power attempts to keep the total interest in offset with total gracefully of merchandise and ventures. On the off chance that total interest is to be expanded than credit is extended and the loan cost is dropped down. In view of low financing cost, more individuals take credit to purchase merchandise and enterprises and henceforth total interest increments and bad habit section.

viii. To ensure more Credit for Priority Sector:

Monetary policy targets giving more assets to need area by bringing down loan fees for these areas. Need area incorporates farming, little scope industry, more vulnerable segments of society, and so on

ix. To Promote Employment:

By giving concessional advances to profitable areas, little and medium business people, unique advance plans for jobless youth, financial arrangement advances work.

x. To Develop Infrastructure:

Monetary policy targets to creating framework. It gives concessional assets to creating framework.

Literature Review

2. Preamble

The obligation regarding money related approach plan rests with the different Bank in India. Money related arrangement objective is framed as far as keeping up value solidness and advancing non-inflationary development. Financial arrangement is known to be a fundamental instrument that a nation can convey at the support of homegrown cost and swapping scale soundness as a basic condition for the accomplishment of a practical monetary development and outer feasibility. This part is consequently devoted to assessing applicable written works on financial arrangement, its instruments and goals just as its execution for monetary turn of events.

2.1 Conceptual Framework

2.1.1 Concept of Monetary Policy

Ezenduyi (2014) defines monetary policy as the arrangement which include the change of money stock (through various methods) loan fee conversion scale just as desire to impact the degree of monetary exercises and swelling wanted way, focusing as the planning up of overabundance liquidity equipped at guaranteeing a non-inflationary full scale of monetary climate. Financial approach can be characterized as the instruments at the removal of the money related specialists to impact the accessibility and cost of acknowledge/cash with a definitive goal of accomplishing value dependability as exhibited by Ibeabuchi. (2012).

David M. Gould Steven B. Kamin, (2016) portrayed the effect of monetary policy related approach on the conversion scale. They estimated of worldwide credit spreads and of homegrown stock costs as intermediaries for speculator worries about reliability and nation danger to all the more likely recognize the effect of money related strategies on the conversion standard. They found that developments in credit spreads and in stock costs apply critical effects on trade rates during financial emergencies.

Samy Ben Naceur, (2015) described that the effect of banks attributes, monetary structure and macroeconomic pointers on banks net revenue edges and benefit in the Tunisian financial industry for the 2000-2012 period. Studies on the determinants of banks revenue edge and productivity have zeroed in whether on a specific nation and on a board of nations. The improvement of the productivity of the banks should be directed by a support of the capitalization of banks through public guideline programs, by decreased the extent of non- premium bearing resources to help bank credits and by diminished the size of enormous banks to ideal levels Richard (2013) expressed that the instrument apparatuses of financial arrangement have been grouped comprehensively in two classes customary and non- conventional quantitative instrument. Financial strategies, **have four broad objectives**.

To keep up a significant level of employment (full employment): Full employment implies work of work, plant and capital at an average ability to accomplish the set objectives of public financial approach pointed toward fighting downturn and financial downturn.

To keep up stable Price level: Price level security objective is connected from a significant perspective to the control of expansion alludes to a circumstance of supported and fast expansion in the overall degree of costs, in any case, produced (Nnanna, 2012). As indicated by Ibeabuchi (2012), swelling lessens genuine discretionary cash flow and therefore the buying influence of cash.

To keep up the most noteworthy supportable pace of financial development: This implies both quantitative and subjective expansion in the complete amount of merchandise and ventures delivered in the economy yearly. Nnanna (2012) believed that financial development is supposed to be accomplished in a nation in a circumstance where there is an expansion in the pay position of the residents of the nation and furthermore a comparing increment in the measure of merchandise and ventures which a given amount of cash can purchase.

To keep up the most noteworthy balance yet to be determined of instalments: A nation's equilibrium of instalment might be in all out harmony of there exists between complete instalments and all out receipts, that is, the evasion of bigger or constant shortfall or surplus yet to be determined of instalments.

2.1.2 Review of Literature

Anil K Kashyap, Jeremy c stein, (1994) analyzed the impact of monetary policy on the bank balance sheet. Retreat analysis was used in this study. Research based on large and small banks. The duration of this study was 1963-1994 .The study component used in this study was interest rate, CPI, GDP, and we found that Declining monetary policy led to a reduction in major bank deposits in all size classes.

David M. Gould Steven B. Kamin, (1999) described the impact of monetary policy on exchange rate. They have measured the prevalence of international debt and domestic stock prices as proxies for investors' concerns about creditworthiness and country risk to better reflect the impact of monetary policy on exchange rates. They found that the movement on credit spreads and stock prices have a significant impact on exchange rates during the financial crisis.

Staikouras.C & Wood.G.E., (1999) sheds light on banking performance studies and differentiates banking profit decisions. It also estimates how internal decisions (within - results change) and external factors (dynamic redistribution effects) contribute to the functioning of the EU banking industry as a whole in 1994-1998. The results of the measurements suggest that the profitability of European banks is influenced not only by factors related to their management decisions but also by changes in the state of the large foreign economy.

Abbel-Hameed M. Bashir, (2000) analyzed how banking and financial conditions as a whole affect the performance of Islamic banks. In particular, the purpose of the study was to examine the relationship between profit and banking characteristi cs, after controlling the indicators of economic and financial structure. The results also showed customer value and short-term support, interest-free goods and overhead. Promoting the profitability of banks.

Campello M, (2002) examines the internal financial markets in financial conglomerates by comparing the responses of small and medium-sized banks with monetary policy. Data collected from the Federal Reserve's Report of Condition and Income. Data collected from 1981 to 1997. Retreat analysis used for an alysis. Factors and variables used in the analysis of the total assets, liquid assets, Total loan, Equal loan amount, Total investment, non-profit loan. The study concluded that monetary policy was tightened, if a small bank operates independently, then the growth of the loan depends largely on its cash flow in periods where funds are scarce.

Samy Ben Naceur, (2003) explained that the impact of banking signals, financial structure and major economic indicators on banks on interest rates and profits in the Tunisian banking industry during 1980-2000. Research into bank interest rates and interest rates is focused on a particular country and group of countries. The improvement in the profits of Tunisian commercial banks should be made by strengthening the investment of banks through national legislation, by reducing the share of interest - bearing assets to finance bank lending and by reducing the size of major banks. At the right levels.

Adam B Elhiraika (2004) analyzed the effect of monetary policy on Islamic ba nking. Communication used for it. A study conducted between 1970 -2001 the big banks and private banks were the main focus.

Finance policy affects the rate of return on financial assets and thus affects the real need for investment, output and payment balance. Monetary policy has been closely linked to the deficit budget.

Harun S.M, Hassan M.K & Zaher T.S, (2005) investigates whether the stock price response of commercial banks in monetary policy actions was dependent on the economic situation. Data collected from 863 national and state-owned commercial banks. Data collected from 1989 to 2000. Retreat analysis used for analysis. Factors and variables used in the analysis were Total Asset, Market Price, Income, EPS, Stock Price, Credit Amount, Credit Asset Rate, Credit Rate, P / E Rate. Evidence showed that the effect of monetary policy on restoring commercial banks to good business conditions was significant compared to bad business conditions.

2.1.3 Concept of Interest Rates

As per Keynes, interest rate is the award for not storing yet for leaving behind liquidity for a particular timeframe. Keynes' meaning of loan fee zeros in additional on the loaning rate.

Adebiyi (2015) defines interest rate as the profit or yield for value or opportunity cost of conceding current utilization into what's to come. A few instances of loan cost incorporate the sparing rate, loaning rate, and the markdown rate. Teacher Lerner, in Jhingan (2016), characterizes revenue as the cost which compares the gracefully of Credit or reserve funds in addition to the net expansion in the measure of cash in the period, to the interest in credit speculation in addition to net 'storing' in the period. This definition infers that a financing cost is the cost of credit which like other cost is controlled by the powers of interest and gracefully, for this situation, the interest and flexibly of loanable assets, Ibimodo (2013) characterized loan costs, as the rental instalment for the utilization of credit by borrowers and return for leaving behind liquidity by moneylenders. Like different costs loan fees play out a proportioning capacity by distributing restricted gracefully of credit among the many contending requests. Bernhardsen (2014) characterized the loan fee as the genuine financing cost, at which expansion is steady and the creation hole rises to zero. That loan fee regularly shows up in money related approach consultations. In any case, Irving Fisher (2012) states that loan costs are charged for various reasons, however one is to guarantee that the bank brings their presentation down to expansion. Expansion causes an ostensible measure of cash in the present to have less buying power later on. Expected swelling rates are a basic piece of deciding if a loan fee is sufficiently high for the bank

2.1.4 Monetary Policy Instruments

The instruments of monetary policy can be categorized into two namely:

1. **Direct or quantitative instruments**
2. **Indirect of qualitative instruments**

Direct Instruments or Qualitative Instruments of Monetary Policy Tools

In spite of the fact that there is a torrential slide of instruments accessible for cash and credit control, the instrument blend to be utilized whenever relies upon the objectives to be accomplished and the adequacy of such instrument to a huge degree depends on the monetary fortunes of the nation.

Save Requirement

Deposit Money Banks to hold a portion (or a blend) of their store liabilities (saves) as vault money or potentially stores with it. Fragmentary save restricts the measure of advances banks can make to the homegrown economy and subsequently limit the gracefully of cash. The supposition that will be that Deposit Money Banks commonly keep up a steady connection between their save property and the measure of credit they reach out to people in general.

Unique Deposits:

Bank has the ability to give indexes now and again requiring all banks to keep up with it as uncommon store a sum equivalent to the rates of the establishment's stores liabilities or the total expansion in its store liabilities over a sum extraordinary at a specific date.

Moral Suasion

Moral suasion basically implies the work by money related position amicable powerful explanation, public proclamation inside and out allures the financial position some of the time utilizes the less unmistakable method to impact the loaning arrangements of different area. Outcomes to the financial framework and the economy in general, the Bank holds intermittent gatherings with the investor’s councils and on other event meets officially or casually with the pioneers in the financial network (2013). With the pioneers in the financial network such agreements are equipped towards the improvement of certainty between the co- usable bank and different banks. It manages the cost of the others bank occasion to talk about the improvement in guidelines and behaviors in the financial business

Specific Credit Control

According to Nnanna (2012), this instrument is utilized to recognize among the areas of the economy into liked and less favored areas. This is generally intended to impact the bearing of credits in the economy in order to guarantee that credits go to those areas planned "liked". It is exceptionally valuable where a nation works advancement plans. At the point when plans are drawn up these credit controls will be incorporated in the financial plan. In course of the public authority's program to renew agrarian creation which is the most preferred area. Credits to the supported area is at lower loan cost while the most un-supported areas pay the most elevated pace of interest.

Direct Credit Control

Direct Deposit Money Banks on the greatest rate or measure of advances (credit roofs) to various monetary areas or exercises, financing cost covers, fluid resource proportion and issue credit assurance to favored advances. In this manner the accessible reserve funds is dispensed and venture coordinated specifically bearings.

Prudential Guidelines

Deposit Money Banks to practice specific consideration in their activities all together that predetermined results are acknowledged (CB, 2013). Key components of prudential rules eliminate some attentiveness from bank the board and supplant it with rules in dynamic.

Indirect Instruments or Quantitative Instruments of Monetary Policy

Fiduciary or paper money is given by the Bank based on calculation of assessed interest for money. To lead monetary policy, some money related factors which the Central Bank controls are changed a monetary total, a loan cost or the conversion scale to influence the objectives which it doesn't control. The instruments of money related approach utilized by Banks rely upon the degree of improvement of the economy, particularly its financial area. The ordinarily utilized instruments are examined beneath (2016):

Open Market Operations

The operative Bank purchases or sells (in the interest of the Fiscal Authorities (the Treasury) protections to the banking and non-banking public (that is in the open market). One such security Bills. At the point when the Bank sells protections, it lessens the gracefully of stores and when it repurchases (back) protections by reclaiming them-it expands the flexibly of stores to the Deposit Money Banks, consequently influencing the flexibly of cash (CB, 2013, Ibeabuchi, 2012: Ojo, 2013; and Solomon, 2013).

Loaning by the Bank:

The Bank once in a while give credit to Deposit Money Banks, along these lines influencing the degree of stores and consequently the financial base (CB, 2013).

Loan cost

The Banks loans to monetarily stable Deposit Money Banks at a most positive pace of revenue, called the base rediscount rate (MRR). The MRR sets the floor for the loan fee system in the currency market (the ostensible anchor rate) and along these lines influences the gracefully of credit, the flexibly of investment funds (which influences the gracefully of stores and money related total) and the flexibly of speculation (which influences full work and GDP) as indicated by Obidike, Ejeh, &Ugwuegbe (2015)

Swapping scale

The equilibrium of instalments can be in shortage or in excess and every one of these influences the monetary base, and subsequently the cash gracefully one way the other. By selling or purchasing unfamiliar trade, the Bank guarantees that the conversion scale is at levels that don't influence homegrown cash flexibly undesired way, through the equilibrium of instalments and the genuine swapping scale. The genuine conversion scale when skewed influences the current record balance on account of its effect on outside seriousness (Akpan, 2013: Imoisi. Olatunji&Ekpenyong. 2013: Ibeabuchi, 2012; and Sanusi, 2014)

Rediscount Rate:

The rediscount rate is the rate at which the bank stands truly to give advance convenience to banks (CB, 2013). As a moneylender after all other options have run out. Such loaning by the national bank is ordinarily at board rates. By rolling out fitting improvements in the rate, the bank controls the volume absolute credits by implication. This has the motivation behind impacting the loaning limit of the business banks. During the times of swelling, the bank may raise the rediscount rate making getting of assets from the national bank more costly. Along these lines, credit is made tighter. Essentially, in discouragement. At the point when it is important to urge business banks to make more credits, the national bank will bring down the rediscount rate.

Money Reserve Requirements:

The hold prerequisite can be controlled by the bank to diminish the capacity of co- employable banks to make advances to general society by just expanding the proportion or upgrading their loaning position by decline in the proportion. Save prerequisite is advance of the most remarkable instruments of money related control (2013). An adjustment in the necessary hold proportion changes the proportion by which the financial framework can extend store through the multiplier impact. In the event that the necessary hold proportion builds, the multiplier diminishes in this way lessens the liquidity position of the financial framework.

Research Methodology

3.1. Introduction

Monetary policy is the system by which the country's financial authority regulates the supply of funds, usually directing interest rates with the aim of promoting economic growth and stability. Legal policies often include stable prices and low unemployment.

Financial theory provides insight into how a sound financial policy is developed. It is called an Expansion or Abbreviation, where the expansion policy increases the total amount of money in the economy faster than normal, and the Contracts Policy expands the supply of funds much less than normal or also reduces it. Expansion policy is often used to try to combat unemployment in the recession by lowering interest rates in the hope that a simple loan will entice businesses to increase. The Exit Policy is aimed at reducing inflation in the hope of avoiding the resulting reversal and deterioration of commodity prices. Basically, a monetary policy means an act of the central bank, financial board or other regulation a committee that determines the size and level of grant growth, which in turn influences interest rates. Monetary policy is maintained by actions such as raising interest rates or changing the amount of money required by banks to keep it at a lower level.

Monetary policy depends on the relationship between interest rates in the economy, that is, the amount of money that can be borrowed, and the amount of the loan. Monetary policy uses a variety of tools to control one or both of these, in order to influence outcomes such as economic growth, inflation, exchange rates and unemployment. Where the currency is subject to a monopoly of issuance, or where there is a regulatory system for issuing a currency by banks tied to a central bank, the financial authority has the power to change the provision and thus affect the interest rate. The start of monetary policy thus dates back to the end of the 19th century when it was used to keep the gold standard.

The data is collected from Shri Rama credit co-operative bank ltd

Source of data the data is collected from Shri Rama credit co-operative bank ltd. with the help of secondary sources.

- Bank annual report
- Banks official website
- Other published account of bank
- Wikipedia.com
- The library

Tools of for data analysis

Data analysis was calculated by using SPSS application to find the financial performance of the banking sector.

Operational Definition

- **Return on Assets (ROA):** This analysis calculated by measuring the net income by total assets of the company:

Formula: ROE= Net income/Total assets*100

- **Return on Equity (ROE):**

  This analysis calculated by measuring the annual net income by shareholder equity of the company.

  Formula: ROE = Annual Net Income / Shareholder's Equity*100

- **Trend Analysis of the co-operative bank**

  We are calculating trend analysis in the year 2016 to 2020 which includes Deposits

  Loans and advances Net profit

- **Break Even Analysis**

  This analysis calculated by Break even analysis of the current year

  Formula: Breakeven point = COM + Risk Cost + Provision – Other income / Financial Margin (%)

- **Financial Ratio Analysis:**

  This Analysis calculating the various financial ratios are

- **Current Ratio:**

  This analysis we are Measuring the Current asset and current liability Formula

  Current ratio = Current asset/ Current Liability

- **Liquid Ratio**

  This Analysis calculating the Liquid ratio by using the Liquid asset and current liability

  Formula

  Liquid Ratio = Liquid Asset/ Current Liability

- **Earnings Per share**

  This Analysis we are calculating Earnings per share Formula

  Earnings Per share = N/P after Tax – Preference Dividend/ No of Equity Share

- **Dividend per Share**

  This Analysis we are calculating Dividend per share by using dividend paid and number of equity share

  Formula

  Dividend per share= Dividend paid to equity shareholder/no of equity share

- **Operating Profit Ratio**

  This Analysis we are calculating Operating Profit Ratio Share by using operating profit and sales

  Formula

  Operating Profit Ratio = Operating profit / Net sales * 100

- **Return on Net Worth**

  This Analysis we are calculating Dividend per Share Formula

  Return on net worth = N/P after interest and tax / Shareholder's fund * 100

- **Return on Capital Employed**

  This Analysis we are calculating Return on Capital by using Net profit before tax and Capital employed

Formula

Return on capital employed = N/P Before interest & tax / Capital employed * 100

3.2. Statement of Problem

Monetary policy is one of the key economic management tools that governments use fix economic performance. Compared to monetary policy, monetary policy is said to be immediately in resolving economic shocks. The objectives of monetary policy are related to management of multiple financial targets among them price stability, growth promotion, gaining a full-time job, fixing a business cycle, preventing financial problems, to stabilize long-term interest rates and real exchange rates. Experience has shown this Emphasis is often placed on maintaining inflation or on ensuring low levels of inflation.

3.3. Objectives of the study

The specific objective of this study is to evaluate the impact on financial performance of a bank. Thus, the main objectives were to:

- To establish the effect of Bank Rate on the financial performance of Co-operative Banks.
- To find out the shortcomings of the in co-operative bank
- To establish the effect of Reserve Ratio Requirement on the financial performance of co-operative bank
- To Analyses the financial performance of the SRC bank during the period 2016-20
- To establish the impact of monetary policy on the cost and availability of credits
- To find out trend analysis of the SRC bank
- To analyses the Breakeven analysis of the SRC bank
- To see whether co-operative bank is going well on or not in different areas

3.4. Statement of Hypothesis

The following hypotheses will be tested in this study:

HO: There is no significant relationship between the Bank rate and financial performance of the SRC bank

H1: Bank rate as a significant impact on the financial performance of the SRC bank

3.5. Scope of study

The scope of this research work is to examine the financial performance of a bank use as a case study.

- It will be an assistance to those who will like to make further research on Monetary policy
- It will assist those who which to know what happens to bank when there is a change in the policies and regulations
- It will be useful to promoters of a bank that are planning to invest in banking business with the aim of maximizing profit.
- Through this work banks will know its limits in tending.
- Banks customers are informed of their right in the banking industry.

3.6. Sampling Design

A descriptive research design is used in this study because it will ensure a reduction in bias and increase the reliability of the collected data. Descriptive research is based on something previous understanding of the topic. The research has a specific purpose and a clear-cut data requirements the researcher had to use facts and information that already existed previous financial statements and analyze these to make an important assessment of available goods. So by doing the kind of research that is made to be both Descriptive and Natural Analysis. From the survey, the type of data to be collected as well as a process was decided upon for this purpose.

3.7. Limitations of the Study

The limitations considered in this research project are:

i. Limit on data production: data obtained is limited to case studies

ii. The duration of this research project is another limitation as it may require more time to obtain the latest information from the bank and customers

iii. There may also be financial and transportation issues in this study

Data Analysis and Interpretation

Introduction

In this part we are analyzing impact on financial performance of Shri

Rama Co-operative Bank (SRCB) Ltd., The data analysis is calculated for past 5years i.e. 2015-2016 to 2019- 2020 which is completely secondary data

Research Analysis

In this analysis they utilized a multiple regression analysis to locate the variable. The research was done by using the statistical program SPSS V 20 code enter and calculated the multiple regression.

In data analysis we used two types of financial performance:

- ROA (Return on Assets)
- ROE (Return on Equity)

In data Analysis we are using various tools of financial analysis

- Trend analysis
- Break even analysis
- Financial Ratio Analysis

Calculation of ROA and ROE with reference of SRCB Bank Ltd.

1. Return on Assets (ROA):

   ROA = Net Income /Total Assets*100

1. **Return on Equity (ROE):**

   ROE = Annual Net Income / Shareholder's Equity*100

   SRC Bank:

4.1 Calculation of ROA for SRC Bank:

ROA=Net income/Total Assets*100

Table 4.1: Showing the Return on Assets

Year	**Return on Assets**
2015-16	0.14
2016-17	0.27
2017-18	0.58
2018-19	0.87
2019-20	0.64

Analysis:

In the above table we can observe that Return on Asset in the year 2018 2019 is the highest and the year 2015-2016 is the lowest

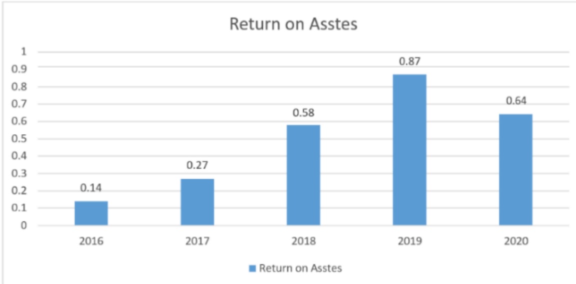

Fig 4.1: showing the graphical representation of Return on Assets

Interpretation

In the above graph we can see in the year 2016 return on asset 0.14 in the year 2017 it will increase up to 0.27 in the year 2018 also it will increase to 0.58 in the year 2019 the return on asset it will reach the heights level 0.87 in the year 2020 it will keep in decreasing Thus the above explains that the ratio of the assets of the company and Generating income has turned down.

4.2 Calculation of ROE for SRC Bank:

ROE = Annual Net Income / Shareholder's Equity*100

Table 4.2: Showing the Return on Equity

Year	Return on Equity
2015-16	27.36
2016-17	33.24
2017-18	39.54
2018-19	48.6
2019-20	24.9

Analysis

In the above table we can observe that Return of Equity in the year 2018-2019 is 48.6 which is the highest and in the year 2019-2020 is 24.9 which is lowest.

Fig 4.2: showing the graphical representation of Return on Equity

Interpretation:

In the above graph we can see in the year 2016 return on asset 27.36 in the year 2017 it will increase up to 33.24 in the year 2018 it will also increase to 39.54 in the year 2019 the return on asset it will reach the heights level 48.6 in the year 2020 it will keep in decreasing Thus the above explains that the ratio of the assets of the company and Generating income has turned down. So, we can conclude that the ratio is not being constant.

4.3 Trend Analysis

Trend analysis of the SRC Bank from the year 2016 to 2020

Particular	2016	2017	2018	2019	2020
Deposits	3041.72	3454.67	3861.92	4153.36	3143.53
Advances	2532.51	3147.36	3386.83	3984.27	2853.34
Net profits	1984.72	2356.25	2786.76	3153.53	2432.42

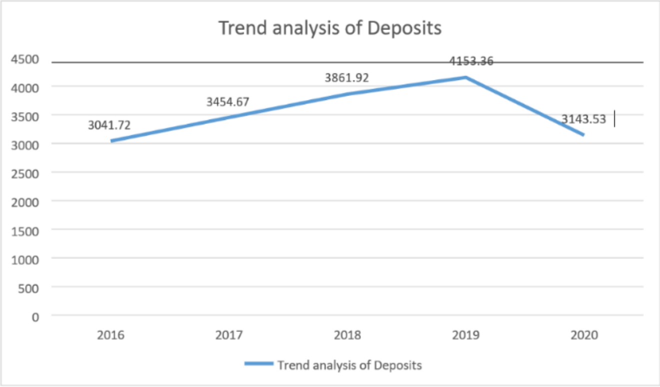

Fig 4.3: Trend Analysis of deposit

Interpretation

It is clear the above figure deposit of bank have been increasing continuously till the year 2019. In the year 2016 it shows 3041.72 in the year 2017 it will increase up to 3454.67 in the year 2018 its shows 3861.92 in the year 2019 it will reach the heights deposit value 4153.36 year ending 2019 followed by a downfall in the year ending 2020 due to the repayment do deposits in this year.

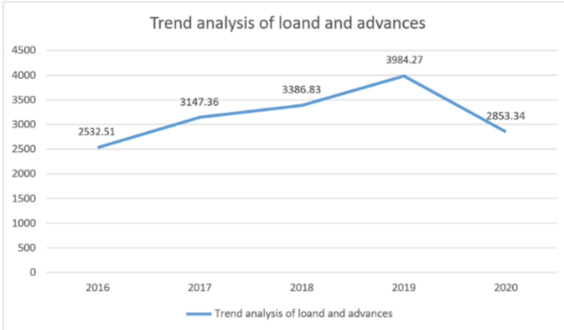

Fig 4.4: Trend Analysis of loans and advances

Interpretation

It is clear from loans and advances are increasing year by year till the year 2019. In the year 2016 trend analysis loans and advances shows that 2532.51 in the year 2017 it will increase up to 3147.36 in the year 2018 also it will increase up to the value 3386.83 in the year 2019 it will reach the max level it shows 3984.27 in the year ending 2019 followed by a slight downfall in the year 2020 the bank as prepared and implemented number of loan schemes targeted towards all section of the society at most attractive terms the bank is offering financial products suiting the requirements of people of all the classes of the society at most attractive forms with personalized service and a sense of accountability is association with use of latest technology facilitating anywhere and anytime banking.

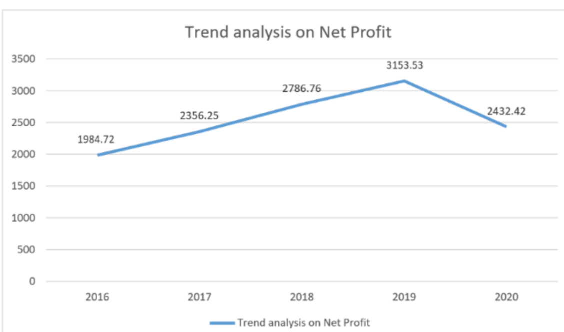

Fig 4.5: Trend analysis of net profit

Interpretation

It is clear from the above figure that profitability of the bank has been increased till the year 2019. In the year 2016 trend analysis of net profit it shows 1948.72 and it will increase in the year 2017 its shows the value

2356.25. in the year 2018 also it has been increased and reach up to 2786.76 in the year 2019 it will reach the heights level to reach the value 3153.53 In the year ending 2019 it will decrease its reach the value 2432.42 from the above figure it will clear that at the last year when a profit of a bank as decreased the SRC bank ltd is a profit earning and continuously dividend paying organization.

The overall performance of the bank it is satisfactory.

4.4 Breakeven analysis of current year

Particular	Amount 2020	% on Asset	Amount 2019	% in Asset
Yield on Assets	45986.76	9.45	41864.47	8.72
Less: Cost of Fund	(36475.15)	(7.50)	(33109.79)	(6.90)
Financial Margin	9511.61	1.95	8754.68	1.82
Less: Cost of management	(7164.05)	(1.47)	(6362.36)	(1.32)
Less: Risk cost	(3986.65)	(0.82)	(2697.46)	(0.06)
Add: Other income	7854.73	2.40	7453.74	1.66
Net Margin before tax	6215.64	1.90	7148.60	1.60
Less: Provision for tax	(3002.5)	(0.92)	(2494.03)	(0.55)
Net Margin	3213.14	0.98	4654.57	1.05

Breakeven analysis of current year

Breakeven point = COM + Risk Cost + Provision – Other income / Financial Margin (%)

In the year 2020

7164.05 + 3986.65 + 3002.5– 7854.73/1.95 = 3229.98 (Rs in lack)

In the Year 2019

6362.36+ 2697.46+ 2494.03– 7453.741.82 =2252.81 (Rs in lack)

Working Fund from current year

Year	Net profit amount (Rs. in lack)	Net margin Percentage	Working fund amount (Rs in lack)
2019	3213.14	0.98	3262.61
2020	4654.57	1.05	4431.63

Interpretation

- In the year 2020 and 2019, the break-even point is 3229.98 lacks and 2252.81 lacks.

  Which shows that in the year 2020 breakeven point is more than as compared to year2019.
- In the year 2019 non-operating income is more as compared to current year.

- As in year 2020 and 2019 the average working fund is Rs 3262.61lac and Rs 4431.63 lac. Which shows that working capital is increase during the year.
- In the year 2020, non-operating expenses is 0.82 percent of assets which is more than percentage of 2019 as 0.60.

Financial Ratio

"Financial analysis comparisons in which certain financial statement items are divided by one another to reveal their logical interrelationships."

Uses of the financial ratio

- To track individual firm performance over time
- To make comparative judgments regarding firm performance.

Types of the Ratios

4.5 Current Ratio

Current ratio = Current asset/ Current Liability

Year	Current Assets (in lakhs)	Current Liabilities (in lakhs)	Current ratio
2016	18931	18673	1.01
2017	25451	22321	1.14
2018	45682	32461	1.41
2019	54891	40852	1.34
2020	52456	43461	1.21

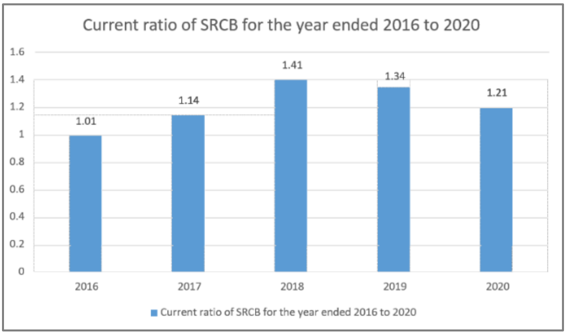

Fig 4.6: showing the graphical representation of the Current ratio

Interpretation

In the above table we can see current proportion is under 2 and more than 1 which shows that the bank have current resources simply equivalent to the current liabilities which is not satisfactory as the wellbeing edge is extremely less or zero. In the year 2018 it will arrive at the maximum level.

In the year 2019 it will keep in decreasing. The bank should keep more current resources so it can keep up an agreeable safety margin

4.6 Liquid Ratio

Liquid Ratio = Liquid Asset/ Current Liability

Year	Liquid Asset	Current Liability	Liquid Ratio
2016	9834	18352	0.54
2017	13254	21854	0.61
2018	35651	37324	0.96
2019	36458	40854	0.89
2020	28354	39589	0.72

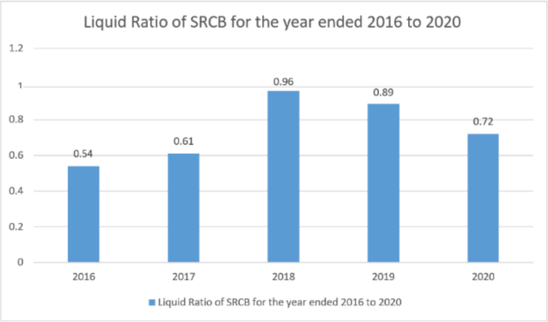

Fig 4.7: Showing the graphical representation of the Liquid Ratio

Interpretation

In the above table we can see that liquid ratio is less than 1 out of 2016, 2017 and 2020 which is not satisfactory however in 2018 and 2019 it is near 1.

This implies the bank has not managed its funds properly in this specific period. In this manner bank should rationally utilize its funds to maintain an ideal liquid ratio.

4.7 Earnings Per share

Earnings Per share = N/P After Tax – Preference Dividend/ No of Equity Share

Year	Net Income Available for Share Holders	No. of the equity Share	EPS
2016	1965.09	68.546	28.67
2017	2386.12	81.413	29.30
2018	2956.34	88.652	33.35
2019	3958.42	101.564	38.97
2020	3548.85	101.41	34.99

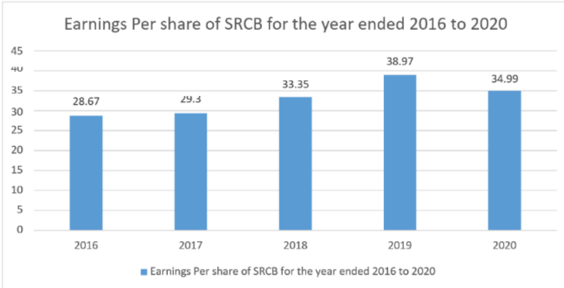

Fig 4.8: showing the graphical representation of the Earnings Per share

Interpretation

Earnings per Share is the most generally utilized the data in which reflects the performance and possibilities of the organization. It influences the market price of shares.

Here the Earning Per Share is shows a determined increase till the year 2019 after that in the year 2020 Earnings Per share is followed by a downfall because of decline in profits.

4.8 Dividend per Share

Dividend per Share = Dividend paid to equity shareholder/ no. of equity share

Year	Dividend Paid	No of equity shares	DPS
2016	549.25	69.124	7.95
2017	645.61	78.54	8.22
2018	812.65	80.94	10.04
2019	1164.45	104.84	11.11
2020	1121.01	105.45	10.63

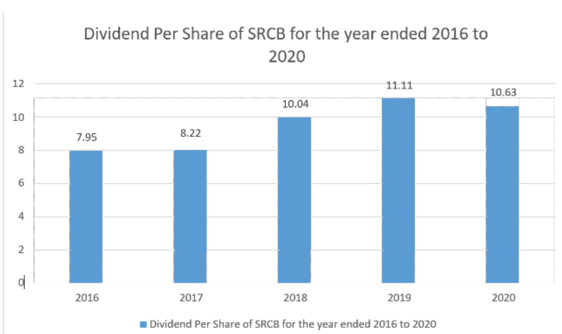

Fig 4.9: showing the graphical representation of the Dividend Per share

Interpretation

Here the Dividend per Share is quite increasing in year after year quite from a little decrease in 2020. In any case the Dividend per share proportion of the bank is quite satisfactory which shows the bank has a decent Dividend paying capacity.

4.8 Operating Profit Ratio

Operating Profit Ratio = Operating profit / Net sales * 100

Year	Operating Profit	Sales	Operating Profit ratio (in%)
2016	2746.12 8951.45 30.68	8951.45	30.68
2017	4140.51 12541.89 33.01	12541.89	33.01
2018	5184.34 19741.12 26.26	19741.12	26.26
2019	6645.46 25941.45 26.6	25941.45	26.6
2020	7125.61 231445.67 30.39	231445.67	30.39

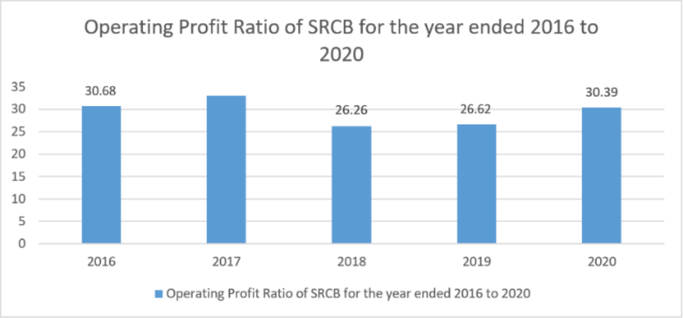

Fig 4.10: showing the graphical representation of the Operating Profit Ratio

Interpretation

In the year 2016 and 2017 the operating profit is 30.68% and 33.01% individually. After that it has been reliably declined from the year 2018 till 2019 and again picking up force in 2020.

This might be because of the explanation that operating costs have been increased more when contrasted with deals during the above period thusly lessening the operating profits.

Consequently, the bank should mind superfluous operating expenses to address this circumstance and to give an adequate return.

4.9 Return on Net Worth

Return on net worth = N/P after interest and tax / Shareholder’s fund * 100

Year	Net profit after interest and tax	Shareholder's Fund	Return on net worth (in %)
2016	1945.54	10845.61	17.94
2017	2054.32	15542.15	13.22
2018	2751.12	18024.41	15.26
2019	3812.84	34541.74	11.04
2020	3715.64	40452.14	9.18

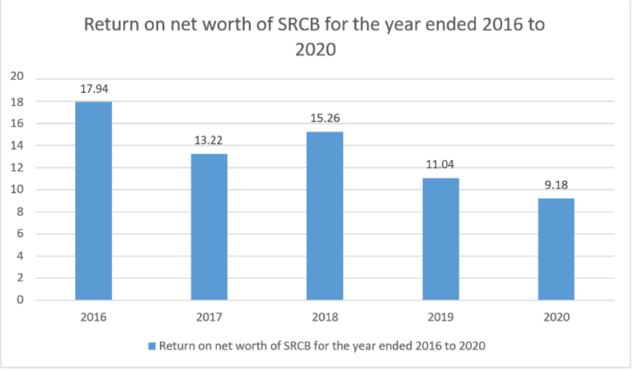

Fig 4.11: showing the graphical representation of the Return on net worth

Year	Net profit before interest & tax	Capital employed	Return on capital employed (in %)
2016	8894.64	135451.34	6.56
2017	9884.24	173541.67	5.69
2018	16542.75	245412.45	6.74
2019	22451.34	298451.48	7.52
2020	25415.67	315412.78	8.06

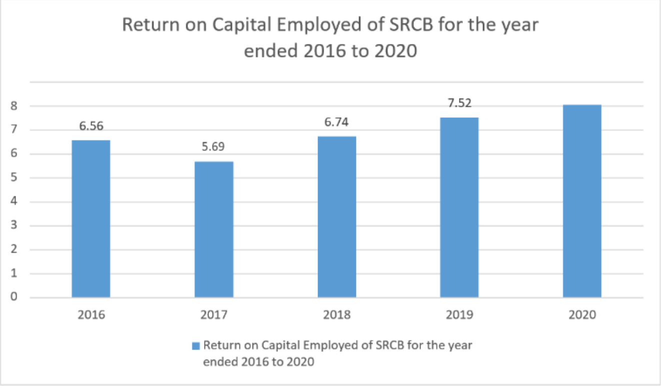

Fig 4.12: Showing the graphical representation of the Return on capital employed

Interpretation

The above table display the return on capital employed ratio of the bank for most recent five years. This proportion quantifies the acquiring of the earning of the net assets of the business.

The proportion was 6.56% in year 2016. After that it raised to the tune of 5.69%, 6.74%, 7.52% and 8.06% in year 2017, 2018, 2019 and year 2020 separately. It prompts the conclusion bank rising but very little proportion of return on capital employed.

Regression Model for SRC Bank

Regression for ROA

To anticipate the variable which are taken from the SRC Bank the test is accomplished for the Data Analysis and Interpretation. In this model Return on Assets (ROA) is a Dependent Variable. What's more, examination is accomplished for 5years.

Table 4.12: Model Summary

Model	R	R Square	Adjusted R square	Standard Error
1	**0.841**	**0.69**	**0.63**	**1.08**

In the above table we utilized Regression Model, here the dependent variable is financial performance of Bank, and the independent variable is all the parts of financial risk. In table the R value is 84% and the R Square worth is 69%. In this figure, R Square is showing the estimation of Financial Performance of Bank which is more dependent on the risk components. Here, R Value is in high Correlation between the predicted variables and dependent variable. What's more, the 63% percent of estimation of R Square is the variety in the performance of bank. Adjusted R Square clarifies the varieties in the dependable variable for example bank performance due to changes in the independent variable i.e., risks.

Table 4.13: ANVOA

<table>
<tr><th>Model</th><th>Sum of Squares</th><th>df</th><th>Mean Square</th><th>f</th><th>sig</th></tr>
<tr><td>Regression</td><td>0.28</td><td>5</td><td>0.28</td><td rowspan="3">5.41</td><td rowspan="3">0.087</td></tr>
<tr><td>Residual</td><td>0.19</td><td>1</td><td rowspan="2">0.047</td></tr>
<tr><td>Total</td><td>0.49</td><td>8</td></tr>
</table>

In the above table for 5% significance level, the null hypothesis is rejected, and alternative hypothesis is accepted for example the 0.087 is greater than 0.05. Consequently, we can presume financial risk has significantly affects the financial performance.

1. Regression for ROE

To anticipate the variable which are taken from the SRC Bank the test is accomplished for the Data Analysis and Interpretation. In this model Return on Equity (ROE) is a Dependent Variable and investigation is accomplished for a 5 years.

Table 4.14: Model Summary

Model	R	R Square	Adjusted R Square	Standard Error
1	**0.813**	**0.725**	**0.695**	**1.171**

In the above table we utilized Regression Model, here the dependent variable is financial performance of Bank, and the independent variable is all the parts of financial risks. In table the R value is 81.30% and the R Square value is 72.50% in this figure, R Square is showing the estimation of Financial Performance of Bank which is more dependent on the risk components. Here, R is high in Correlation between the anticipated variables and dependent variable. What's more, the 69 percent of estimation of R Square is the variation in the performance of bank. Changed R Square explains the varieties in the dependable variable for example bank performance due to changes in the independent variable i.e., risks.

Table 4.15: ANVOA

Model	Sum of Squares	df	Mean Square	f	sig
Regression	19.14	5	19765	17.51	0.13
Residual	7.27	1	1.963		
Total	26	8			

In the above table for 5% significance level, the null hypothesis is rejected and alternative hypothesis is accepted for example the 0.13 is greater than 0.05. Henceforth, we can presume that financial risk significantly affects the financial performance.

5.1 Findings

- we can see that up to 2018-19 the return on asset is expanding to 0.82 whereas the last year 2019-20 the return on asset dropped to 0.64 in this manner the above clarify that the proportion of return on asset of a bank and generating income has turned down
- we can see that Return on Equity in the year 2018-2019 is 48.6 which is the most elevated and in the year 2019-2020 the proportion got drop down to 24.9 So, we can reason that the proportion isn't being steady.

- There is a consistent expansion in the deposits till the year 2019 followed by a destruction in the year ending 2020 because of reimbursement do deposits in this year.
- Similarly progresses additionally shows as expanding pattern till the year end 2019 followed by a slight downfall in the year ending 2020
- There has been a considerable expansion in net benefit till the year ending 2019.In four years it has been more than double the overall performance of the bank is satisfactory.
- In the year 2020 and 2019, the break-even point is 3229.98 lacks and 2252.81 lacks.

  Which shows that in the year 2020 breakeven point is more than as compare to year2019.
- In the year 2019 non-operating income is more as compare to current year.
- As in year 2020 and 2019 the average working fund is Rs 3262.61lac and Rs 4431.63 lac.

  Which shows that working capital is increase during the year.
- In the year 2020, non-operating expenses is 0.82 percent of assets which is more than percentage of 2019 as 0.60.
- In the above table we can see current proportion is under 2 and more than 1 which shows that the bank has current resources simply equivalent to the current liabilities which is not satisfactory as the wellbeing edge is extremely less or zero. In the year 2018 it will arrive at the maximum level. In the year 2019 it will keep in decreasing. The bank should keep more current resources so it can keep up an agreeable safety margin
- Here liquid ratio is less than 1 out of 2016, 2017 and 2020 which is not satisfactory however in 2018 and 2019 it is near 1. This implies the bank has not managed its funds properly in this specific period. In this manner bank should rationally utilize its funds to maintain an ideal liquid ratio.
- Earnings per Share is the most generally utilized the data in which reflects the performance and possibilities of the organization. it influences the market price of shares Here the Earning Per Share is shows a determined increase till the year 2019 after that in the year 2020 earnings Per share is followed by a downfall because of decline in profits.

- Here the Dividend per Share is quite increasing in year after year quite from a little decrease in 2020. In any case the Dividend per share proportion of the bank is quite satisfactory which shows the bank has a decent Dividend paying capacity.
- Operating profit ratio its shows in the year 2016 and 2017 the operating profit is 30.68% and 33.01% individually. After that it has been reliably declined from the year 2018 till 2019 and again picking up force in 2020. This might be because of the explanation that operating costs have been increased more when contrasted with deals during the above period thusly lessening the operating profits. Consequently, the bank should mind superfluous operating expenses to address this circumstance and to give an adequate return.
- The net profit after interest and tax have increased gradually till the year 2017 followed by a downfall due to high interest instalments, operating expenses and tax collection risk. Thus, the net worth ratio has declined impressively and has diminished to the greater part in the year 2018.
- Return on capital employed ratio of the bank for most recent five years. This proportion quantifies the acquiring of the earning of the net assets of the business. The proportion was 6.56% in year 2016. After that it raised to the tune of 5.69%, 6.74%, 7.52% and 8.06% in year 2017, 2018, 2019 and year 2020 separately. It prompts the conclusion bank rising but very little proportion of return on capital employed.
- For the regression ROE the ANOVA table 5% significance level results the Null hypothesis is rejected, and the alternative hypothesis is accepted. Because the P value is 0.2656 is greater than 0.05. Hence, we can conclude that financial risk has a significant impact on the financial performance of the bank.
- For the regression ROE the ANOVA table 5% significance level, the null hypothesis is rejected, and alternative hypothesis is accepted for example the 0.13 is greater than 0.05. Henceforth, we can presume that financial risk significantly affects the financial performance.

5.2 Conclusion

- Based on the different methods applied for financial analysis of cooperatives. We can confirm the financial status and overall performance. The bank is satisfactory. As bank income increases Duration but not as fast as spent. However, the bank succeeded maintaining a reasonable profit margin.

- Return on Financial Performance Assets (ROA) considered for SRC Bank and Return on Equity (ROE). Both have high returns, which is good for the bank
- This project has provided a great understanding of the relationship between the bank Performance by ROA (Return on Assets) and ROE (Return on Equity).
- The bank has also been successful in increasing its share capital Almost 50% in the last 5 years.
- The bank's major success has been the tremendous growth in its deposits, this has always been its main goal. Fixed and current deposits are also shown the growing trend.
- Due to the increase in advances, the interest accruing to the bank from such advances this is proving to be a major source of revenue for the bank.
- Equity shareholders are also enjoying a growing trend in returns on their capital.
- Although the bank does not have current assets and liabilities (current liquidity) despite being satisfactory the bank was able to maintain a stable solvency position Years. With regard to the ratio of external and internal similarities, this is obvious the bank is using a large amount of external equity in the form of loans and Borrowing compared to the owner's equity. Bank investments also seem to be on the rise Trend. As the advances increase, the bank receives interest from such persons Advances are proving to be a major source of income for the bank.
- This study has been very helpful in gaining knowledge about the financial performance of SRC Bank Limited.

5.3 Suggestions

This Study is done mainly to predict the components of the impact the financial performance of bank. And for this study different components of ratios are used for the bank performance of the SRC Bank. For Bank

Performance in this ROA and ROE two variables considered to compare with the financial performance. And also, we show the Trend analysis of deposit, loans and advances and net profit for the year and we can see in the breakeven analysis of the SRC bank.

- SRC Bank ROA and lower last year if the company makes more profit so it will be more beneficial for the bank. However according to them the short-term liquidity position is very satisfactory the liquid ratio, but the current ratio is less than the ideal ratio of 2: 1. So the bank is needed Make efforts to increase your current assets to maintain and maintain a security margin Improved liquidity position.
- The high trend of credit deposit ratio shows that the bank has performed satisfactorily regarding the granting of loans and advances to earn income. Indicates that it is credit The Bank is doing well and doing its business well by fulfilling the following the main goal is to give credit and accept deposits to get more Reliability bank in the market should maintain its credit deposit ratio
- The bank should try to finance more projects. Helps to raise funds. The greater the amount of profit.
- There is a high reliance on the bank's loan capital. Increasing dependence External stocks can prove risky in the long run. So, fix it Status The bank should increase its focus on other internal equity sources Internal financing.

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