"EXAMINE THE IMPORTANT DIMENSIONS OF ATM BANKING IN PUBLIC AND PRIVATE SECTOR BANKS IN INDIA"

Thesis

Submitted for the award of

Degree of Doctor of Philosophy in

Commerce

By

VIVEK KUMAR TIWARI

Enrollment No: MUIT0116038047

Under the Supervision of

Dr. S. D. Sharma

Professor

School of Commerce and Management
MUIT, Lucknow, U.P.

Maharishi University of Information Technology

Sitapur Road, P.O. Maharishi Vidya Mandir
Lucknow, 226013
2022

Declaration By The Scholar

I hereby declare that the work presented in this thesis entitled **"Examine the Important Dimensions of ATM Banking in Public and Private Sector Banks in India"** in fulfillment of the requirements for the award of Degree of Doctor of Philosophy in Commerce, submitted in the Maharishi School of Commerce and Management, Maharishi University of Information Technology, Lucknow is an authentic record of my own research work carried out under the supervision of **Dr. S. D. Sharma.**

I also declare that the work embodied in the present thesis-

    i)   is my original work and has not been copied from any journal/ thesis/ book; and

    ii)   has not been submitted by me for any other Degree or Diploma of any University/ Institution.

<div align="right">Signature of the Scholar</div>

Maharishi University of Information Technology Lucknow

Supervisor's Certificate

This is to certify that **Mr. Vivek Kumar Tiwari** has completed the necessary academic turn and the swirl presented by him is a faithful record is a bonafide original work under my guidance and supervision. He has worked on the topic **"Examine the Important Dimensions of ATM Banking in Public and Private Sector Banks in India"** under the School of Commerce and Management, Maharishi University of Information Technology, Lucknow.

Date: Name of Supervisor

Acknowledgement

The award of degree "Doctor of Philosophy" is one of the hardest deserving achievements which are not easily found. During the entire research work some valuable people conceived their enormous positions in my heart. In this regard, I am grateful to the University and express my deep sense of gratitude to its HonorableVice-Chancellor for delivering this great opportunity to me. I also want to convey Professor regards to the registrar of MUIT, who has always motivated me for this work.

I would like to acknowledge my indebtedness and render my warmest thanks to my supervisor, **Dr. S. D. Sharma** (**Professor**), who made this work possible. His friendly guidance and expert advice have been invaluable throughout all stages of the work. Ph.D. is both painful and enjoyable experience. It is just like climbing a high peak step by step accompanied with bitterness, frustration, encouragement and trust and with too many persons' kind help. When I found myself at the top, I realized it is utmost important to express my gratitude in words to all those people who helped me. I take this opportunity to remember and express my gratitude to all those who guided and helped me during my course of journey towards my research work. Without their cooperation and encouragement it would have not been possible to complete this work successfully .It would not have been possible to write this doctoral thesis without the help and support of the kind people around me.

Primarily I would like to thanks God for being able to complete this thesis. Then it would not be out of place to acknowledge the most loving caring my mother **Smt. Urmila Tiwari** And My Father **Late Mr. Suresh Kumar Tiwari**, My Brothers **Deepak Kumar Tiwari** And **Devendra Kumar Tewari**, **Mrs. Shail Tripathi**, **Mr. Suresh Prasad Tripathi**, **Asmita Tripathi**, **Anupama Tripathi**, **Shardendu Tripathi**, **Swastika Tripathi** as without their support this work would not have been possible easily.

Date:

Place: ¼----------------------------------

-----½

ABSTRACT

Indian banking has gone through gigantic changes over the long haul and the passage of private area banks has changed Indian banking both primarily and practically. In this serious climate, presence of a successful financial framework is fundamental for the monetary exercises and modern advancement of a nation. Taking a gander at the predominant serious climate among banks, it was believed to be basic to study and look at the presentation of public and private area banks. The current investigation has been directed to examine near monetary execution and monetary comprehensiveness of public and private area banks. The investigation additionally dissected relative consumer loyalty levels of public and private area banks. The examination of monetary execution comprehensiveness of chose bank bunches was done based on optional information gathered more than 10 years (2005-06 to 2014-15), since the proper beginning of monetary comprehensiveness in 2005-06. Different measurable procedures like rate technique, accumulated yearly development rate and proportion investigation were applied to study and look at the monetary presentation and comprehensiveness of chose bank gatherings. To acquire an understanding into the degree of consumer loyalty as to administrations given by open and private area banks. An example of 900 clients from three northern locale states for example Punjab, Haryana and Himachal Pradesh was chosen for essential review. A very much organized poll was utilized to gather the information. Consumer loyalty was concentrated based on different boundaries like viability, openness, cost, effects, dependability and sympathy. Relationship between the chose boundaries and financial factors for example age, sex, instructive capability, occupation, yearly pay and region was considered utilizing chi square test. Mean and standard deviation likewise were determined to distinguish the degree of scattering in the assessment of clients. The outcomes uncovered that regarding monetary execution, public area banks were better entertainers in credit-store proportion and speculation store proportion, while private area banks were ahead as far as NPA the board, return on resources, return on value, net revenue edge and keeping up capital sufficiency proportion. Cost of stores of both the bank bunches was discovered to be nearly at standard. The aftereffects of monetary incorporation inferred that private area banks were ahead in ATM infiltration, Public area banks need to advance the utilization of check cards other than

utilizing it as an ATM card. In consumer loyalty, portable and web banking involved worry for both public and private area banks. Private area bank clients were nearly happier with viability, dependability and substantial quality pointers. Then again open area banks were savvier. Availability is as yet a matter of worry for public area banks, though private area banks need to keep up better straightforwardness with regards to exacting expenses and charges on administrations.

CONTENTS

****

LIST OF TABLES

****

LIST OF FIGURES

****

ABBREVIATIONS

RBI	Reserve Bank of India
ATM	Automated Teller Machine
NPA	Non Performing Assets
E-Banking	Electronic Banking
UNCTAD	United Nations Conference on Trade and Development
ROI	Return on Investment
E-channels	Electronic Channels
GDP	Gross Domestic Product
WTO	World Trade Organization
FDI	Foreign Direct Investment
ICICI	Industrial Credit and Investment Corporation of India
SBI	State Bank of India
NCR	National Cash Register
PC	Personal Computer
USA	United States of America
HSBC	Hong Kong and Shanghai Banking Corporation
NCPI	National Payments Corporation of India
NFS	National Financial Switch
PIN	Personal Identification Number
IDBRT	Institute for Development and Research in Banking Technology
RRBs	Regional Rural Banks
GUI	The Graphic User Interface
VISA	Visitors International Stay Admission
SLR	Statutory Liquidity Ratio
CRR	Cash Reserve Ratio
UTI	Unit Trust of India
HDFC	Housing Development Finance Corporation
DEA	Data Envelopment Analysis
PSBs	Public Sector Banks
CAGR	Compound Annual Growth Rate
PNB	Punjab National Bank
J&K	Jammu and Kashmir
HRD	Human Resource Development
CAPM	Capital Asset Pricing Model
CV	Coefficient Of Variety
SBOP	State Bank of Patiala
CAGR	Compound Annual Growth rate
EPS	Earning Per Share
SPSS	Statistical Package for Social Sciences
GB	Grameen Bank
NREGA	National Rural Employment Guarantee Act
SHG	Self Help Groups
KCC	Kisan Credit Cards
IFI	Index Of Monetary Incorporation

BC	Bank Correspondent
PCA	Principal Component Analysis
CIFI	Composite Index of Financial Inclusion
HDI	Human Development Index
NGO	Non Government Organization
KYC	Know Your Customer
CRM	Customer Relationship Management
NCR	North Capital Region
SERVQUAL	Service Quality Gap Model
BOB	Bank of Baroda
VAS	Value Added Services
NPCI'S	National Public Monetary Switch
WLAO)	White Label ATM Operators
WLAs	White Label ATMs
WWW	World Wide Web
NBFC	Non-Banking Financial Company
CCTV	Closed Circuit Television
IDRBT	The Institute for Banking Technology Development and Research
PKI	Public Key Infrastructure
SFMS	Standardized Financial Messaging System
MPLS	Multi Protocol Label Switching
CBS	Core Banking Solution
ANOVA	Analysis of Various

****

CHAPTER 1

INTRODUCTION

CHAPTER 1

INTRODUCTION

Banking framework assumes a significant part in working of the current financial world. The development of exchange and industry, which contributes essentially towards in general monetary development, relies urgently on the smooth progression of cash through banks. The presence of powerful financial framework in this manner is fundamental for the monetary advancement of a nation; and the Indian financial development story abundantly features the noteworthiness of a sound financial framework.

The idea of stream of cash or banking is reflected in references accessible in our old sacred texts. The matter of cash loaning was very normal during the Vedic time frame and during the hour of Mughal period native investors assumed an essential job by loaning cash for advancing unfamiliar exchange and business. Further, the dealers of East India Company set up their own organization houses at the ports of Bombay, Calcutta and Madras (presently Mumbai, Kolkata and Chennai separately) in seventeenth century to perform exchange and trade exercises, under which they likewise carried on the financial organizations.

The first bank in quite a while, the General Bank of India was set up in 1786 followed by the development of Bank of Hindustan and the Bengal Bank. The most extensive accomplishment of this period was the development of Bank of Bengal (1806), Bank of Bombay (1840) and Bank of Madras (1843); which were recognized as Presidency Banks (RBI, 2008). In 1921, the consolidation of these three administration banks prompted the arrangement of the new bank known the Imperial Bank of India. The further development in financial area occurred with the arrangement of Reserve Bank of India on first April 1935 under the Reserve Bank of India Act, 1934 (Gauba, 2012). A decrease in client base and execution of banks was felt when numerous little banks went into liquidation during the hour of emergencies, as the financial area was not created to meet the necessities of the.

1.1 BANK NATIONALIZATION ERA

A significant advance to control banking framework occurred in 1948, when the RBI was nationalized and turned into the foundation completely possessed by the GOI. Further, the Banking Regulation Act was passed during 1949 which brought RBI heavily influenced by the public authority and vested it with wide scope of forces to direct and oversee business banks. Under this Act, it was guaranteed that none of the banks can open another branch and no new bank can be set up without due authorization and permit from RBI.

Further, with a target of expanding banking administrations, particularly into provincial territories, the Imperial Bank of India was nationalized and was renamed as State Bank of India (SBI) in 1955. This bank was offered forces to work as the vital delegate to keep power over the financial exchanges all through the nation and offer wide scope of administrations to country and semi-metropolitan regions. As the goal was extension of the bank, subsequently seven different banks which were important for royal states were nationalized and made auxiliaries of the State Bank of India From that point, as the requests of need areas, limited scope ventures (SSIs) were not being satisfied, the GOI by passing a statute nationalized other fourteen primary business banks on July 19, 1969. From 1969 to 1979, the 14 nationalized banks opened more than 21 thousand new bank workplaces raising the number from 8262 to 30202 separately.

In this way, six more business banks were given nationalized status in 1980 and before the finish of 1980 about 80% of the banks were heavily influenced by the public authority. The essential point of bank nationalization was to offer need to meeting the credit prerequisites of the borrowers from in reverse area, limited scope businesses, and horticulture and fare area. The loaning objective of 33.3% of absolute advances was characterized for need area loaning. All through the length from 1969-1984, banks gave huge number of administrations to its clients in country zones and put forth broad attempts to spread bank offices for activating the stores of clients and loaning it to borrowers from more fragile segment of the general public.

After the second period of nationalization the public authority of India had the power over 91% of the financial business of the nation. The banks were currently fit for serving the enormous segment of the individuals for financial development of the nation Nationalization of banks came about into the comprehensive program of branch extension, opening of saving records and need area loaning. Banking area demonstrated critical outcomes during the seventies and eighties in achieving the destinations set by the public authority. Nationalized banks were working in less serious climate, with not many private and unfamiliar banks around then, and thus, during late eighties, social banking and client support turned into the matter of worry because of the un-compassionate mentality of bank staff and conventional way of working of the banks. Long lines at bank counters, delay within proper limits freedom, and non-accessibility of structures were likewise a portion of the issues which ceaselessly grieved the clients. Additionally, the banks were loaning to advantaged class for the sake of social banking, rather than aiding the under-special .

During late eighties the portion of stores with nationalized banks began declining; till 1984 the nationalized banks had a portion of 63.30% of all out stores, which dropped down to 62.75% by March 31st 1991 Besides, some inner just as outer requirements of banks prompted low operational effectiveness, lacking capital base, increment in NPAs, decline in benefits and unacceptable client care. The suggestions made by Narsimham Committee in 1991, featured that Indian business banks were burdened with huge measure of NPAs and accordingly banks went monetarily powerless. Accentuation on need area loaning, bank office development, increment in foundation costs, decline in non-premium pay and store arrangement were some different elements which influenced the productivity of nationalized banks The RBI took a few measures to guarantee security and consistency of banks and urged them to assume a lead job in quickening the financial development. Despite the fact that banks had been contributing fundamentally towards the headway of public economy, yet still after the quick development of stores, the monetary state of banks was discovered to be unfruitful, wasteful and inefficient. Subsequently, the RBI hindered the rate of branch development and laid accentuation on fortifying of existing branches and client base In 1990s, the public authority concocted the arrangement of changing and permitting little private area banks. The first focal point of bank changes was to advance

operational freedom, adaptability, rivalry in financial framework and to increase the expectations of banks in the nation, at standard with global guidelines.

1.2 POST REFORM ERA

Regarding these settings, Narasimham Committee-I presented monetary and monetary area changes in 1991 with an intend to make Indian financial area more proficient, solid and energetic. The crucial change measures suggested by the Committee changed the appearance and possibilities of banking industry. The time frame between 1992-97 saw various change estimates like decrease for possible later use necessities, capital ampleness standards, and liberation of loan costs, improving seriousness and fortifying of bank management.

In 1993, the public authority offered licenses to seven new private area banks to advance the soul of rivalry and to broaden the range of banking in hitherto avoided territories. The noticeable among these banks were ICICI (Industrial Credit and Investment Corporation of India), GTB (Global Trust Bank), HDFC (Housing Development Finance Corporation) and IDBI (Industrial Development Bank of India) bank (Gauba, 2012). This turn of events and quick development in Indian economy restored the financial arrangement of the nation. The significant giver towards this development was the financial area; all area banks in particular open area banks, private area banks and unfamiliar banks. Notwithstanding 27 public area banks, 24 new private area banks were added during 1993-1998. The complete of business banks, barring RRBs expanded from 75 of every 1992 to 99 out of 1998 (Malli, 2011). Private area banks, which were famously known as New Generation well informed banks, made financial more serious and client cordial. Development of these banks brought public area banks out of vanity and made them more serious (Vohra, 2011). Public area banks were unrivaled in the event of client devotion, picture and client direction, while new private area banks were viewed as more client neighborly.

Further, in 1997, the GOI set up Narasimham Committee-II to audit the record of original monetary area changes and draw the blue print of things to come changes important to make India's financial area more grounded and better prepared to meet worldwide rivalry (Nandy, 2010). The report put together by the panel in April 1998 made wide scope of proposals covering different parts of banking strategy,

institutional, administrative and authoritative measurements in the perspective on capital sufficiency, resource quality, non-performing resources, coordinated credit, prudential standards, straightforwardness, resource obligation the board, income and benefit, approaches and strategies, rebuilding including consolidations and mixtures, decrease of government and RBI shareholding to 33% in the public area banks, formulating viable administrative standards and the audit of banking area laws.

Advancement and globalization of the Indian economy, concerning increment in the passage of unfamiliar banks and private area banks opened new vistas for the development of banking framework in the nation (Anita and Singh, 2013). Notwithstanding of reformist turns of events, in the wake of banking area changes and passage of technically knowledgeable banks, huge extents of oppressed were as yet prohibited from formal monetary administrations net. Keeping in view this situation it had gotten fundamental for banks to work for holding the current client base and improve the degree of credit conveyance framework for upgrading the power of monetary consideration. Since freedom the public authority had been taking different measures to extend banking in rustic and unbanked territories to forestall individuals getting from private cash loan specialists. Social financial arrangements were created to move the focal point of business banks from particular banking to mass banking with the concentration to build up new bank offices and spread financial offices to incorporate the unbanked into banking. In 2005, the Reserve Bank of India, with the effective pilot project in association region of Pondicherry, officially presented the arrangement of monetary consideration. Mangalam town was the first town in Quite a while to get a chance to have all financial offices. Notwithstanding this RBI loosened up KYC (Know Your Customer) standards for the clients to open ledger with yearly store of under '0.05 million While examining monetary incorporation, the Rangarajan Committee (2008) distinguished investment funds, advances, protection, acknowledge, and installments as the components which deciding monetary comprehensiveness.

Even after the effect of worldwide emergencies on the profitability and capability of banks, the GOI and RBI kept the ball moving to offer important monetary types of assistance to the individuals who were unbanked. The Reserve Bank of India (2010) revealed the expansion in number of credit records to '118.6 million and complete

store records to '734.8 million out of 2010. A lot more activities like authorization given to business banks for setting up off-site ATMs and white name ATMs (WLAs) by non-bank elements were taken to try and incorporate the towns underneath the number of inhabitants in 2000 under the umbrella financial framework. Considerable advancement have been made by giving availability of banking administrations to the individuals through Jan Dhan Yojana program which was dispatched with a dream accomplishing 100% monetary comprehensiveness by opening 600 million records by 2020 (RBI, 2015).

1.3 CURRENT SCENARIO

As of now, banking in India is genuinely full grown to give wide item reach a lot; despite the fact that the scope in certain areas of rustic India is as yet a test for the private area and unfamiliar banks. As of now in any event 80% of the business is as yet heavily influenced by open area banks (Singh and Arora, 2011). People in general and private area banks of India give broad scope of banking administrations in particular opening an investment account, web banking, conceding advances, selling protection, giving storage offices to moving cash abroad and so.Each bank needs to work for fulfilling the clients who come from various classes of the general public. Since most recent few decades, because of progressively serious, soaked and incredible business climate, retail banks in numerous nations have embraced client benevolent ways of thinking to overcome any barrier among bank and the client.

Right now, there are 93 booked business banks in India and these incorporate 27 public area banks, 20 private area banks and 46 unfamiliar banks. Private area banks have around 19975 branches and around 51490 ATMs in the nation. Throughout the timeframe gigantic development and accomplishments have been seen by present financial arrangement of India. These have been ascribed to the methodology of extension, re-association, combination, and approach of web and in particular to the innovative changes which have changed the total situation. Broad effort has been a striking accomplishment in Indian banking throughout the previous few decades. Banking is presently not just restricted to urban communities; rather the financial administrations are coming to even the distant regions of the nation. Banking administrations have additionally demonstrated colossal improvement by offering broad scope of administrations.

In such a climate, it has gotten necessary for banks to gauge their monetary presentation on ceaseless premise as endurance in the present serious climate will rely on in general productivity of banks. It has been seen that now-a-days banks are attempting to receive the change and improve their exhibition for endurance in the evolving economies. The ability of the financial area additionally relies on as how best the administrations are conveyed to its objective clients or how far the assumptions for clients are met. Any support of be given to the clients can be separated by the specialist co-op from that of its rivals on the off chance that it has some remarkable selling suggestion. The clients contrast the administration and the normal assistance. The clients see the administrations given by banks to be top notch just if these are according to their assumptions; and this discernment prompts consumer loyalty.

Consumer loyalty is a dynamic idea and at present it is a significant issue to be tended to by the banks. Clients, as of now, are all the more requesting and expect brief administrations and in this manner a client driven view has supplanted the previous item driven view in banking. Keeping in view the above situation, present examination was directed to quantify the presentation of public and private area banks mulling over the three significant perspectives viz. monetary execution, monetary comprehensiveness and consumer loyalty as to administrations given by banks. An endeavor was made to look at general society and private area banks on the chosen viewpoints as momentarily talked about hereunder.

1.4 FINANCIAL PERFORMANCE

Profitability is an essential pointer of financial execution and it shows connection between the yield and the data sources used to create it (Bansal, 2010). Profitability of banking area, as brought up prior, is significant for monetary development of a nation. It is accepted that solid and efficient financial framework prompts quicker monetary development (Singla, 2013). In spite of the fact that the financial area has gained great ground in effects yet there still are difficulties and banks would need to constantly observe the equivalent. Accordingly, assessment of execution has gotten significant for the banks since it helps in shielding the financial activities from the nonstop danger related with capital market (Hays et.al. 2009). Today, watching out for bank execution has become a favored subject for some partners, for example,

clients, speculators and the overall population. Various monetary markers are accessible to evaluate the monetary presentation. However, the absolute most significant rules to decide the similarity and soundness of a monetary association are different proportion estimates like credit store proportion return on resources proportion, net NPA to net advances proportion, capital sufficiency, resource quality, nature of the board and so forth In this examination the proportion measures have been utilized. These rating are generally acknowledged for assessing execution of banks and other monetary establishments.

1.5 FINANCIAL INCLUSION

Monetary consideration might be characterized as the "cycle of guaranteeing admittance to monetary administrations and convenient and sufficient credit where required by weak gatherings, for example, more vulnerable areas and low pay bunches at a reasonable cost". The Reserve Bank of India (2011) gave a more extensive definition expressing that "monetary consideration is the way toward guaranteeing admittance to proper monetary items and administrations required by all areas of the general public as a rule and weak gatherings, for example, more fragile segments and low pay bunches specifically at a reasonable expense in a reasonable and straightforward way by standard institutional players". In spite of the monetary consideration drive being the rotate being developed of monetary framework, local incongruities are as yet noticed. For instance, monetary consideration is low in the North Eastern Region of the nation. The provincial normal is just 37.3 percent of the populace which goes under the area of monetary consideration; this is fundamentally low when contrasted with the public normal of 59.2 percent.

The route forward in monetary consideration was characterized in June 2012, when it was concluded that banks need to build up a procedure to bring all monetarily rejected under the umbrella of monetary incorporation by covering the unbanked towns with populace of under 2000 with banking administrations. Even after broad effort tremendous extents of poor and disadvantageous populace remain barred from the formal monetary framework in India and in this way the RBI came out with an approach containing grouping of occasions for including the unbanked under the domain of banking. Since 2006 numerous estimates like monetary training, utilizing

innovation and making mindfulness have been taken to improve the admittance to reasonable monetary administrations.

1.6 CUSTOMER SATISFACTION

Consumer loyalty is supposed to be the proportion of how items and administrations given by any association meet the assumption for a client. The productivity of the financial area relies upon how it conveys the administrations to its clients. To make due in this serious climate, it is significant for banks to offer quick and productive types of assistance to its clients. Individuals working in banks are the initial ones to think about the particular requirements of the client and go about as an extension between the bank and client. In the present serious climate it has become a test for particularly open area banks to keep hold of the current clients and draw in new ones (Bhatt, 1990). In any case, even subsequent to offering adequate scope of administrations there exists a hole between the administrations given by the banks and the assumptions for the clients. In this quick changing situation it is significant that banks go for client division and give dependable, autonomous, unprejudiced assessment and customized treatment that clients presently anticipate. Taking into account the expanding rivalry among banks it is the consumer loyalty's that will go about as a sole separating component to remain around here (The Hindu, 2012). The possibility of consumer loyalty is a hypothetical idea with the condition of fulfillment differing from individual to individual and administration to support; as the condition of fulfillment relies upon the both mental and actual factors (Kanojia and Yadav, 2012).

The above conversation and different investigations show that the private and public area banks have gained huge ground during the change time frame. Simultaneously, in the current situation Indian financial framework is confronting immense difficulties and firm rivalry because of headway of innovation. The serious character has additionally been advanced by encouraging the passage of unfamiliar banks too. Henceforth, it was believed to be basic to consider the monetary presentation of private and public area banks opposite the new turns of events and furthermore to comprehend the variables which decide the monetary exhibition of the banks. It has been brought out by numerous investigations that there have been enhancements in physical assets in financial area over the previous years. In any case, not all segments

of the general public are getting profited by this and subsequently taking a gander at the monetary comprehensiveness acquires significance. Henceforth, monetary comprehensiveness was taken as a goal to address such inquiries in this examination. Likewise, to keep the force on and to make due in the forceful serious climate and keep the client fulfilled, it is needed to industriously improve the administrations given to its clients. It had been uncovered that 5% ascent in client maintenance can expand benefits of the banks by 35%. Hence, banks have been persistently attempting to hold the clients and to expand its piece of the pie (Chothani et.al. 2004). Consequently, the issue of consumer loyalty with respect to the administrations given by open and private area banks has likewise been tended to in this examination. Against this setting, a similar report on execution of private and public area banks in India was led with following as the particular destinations of the investigation.

1.7 EVOLUTION OF E-BANKING

The trend has been the creation of service delivery channels through which consumers can interact with the banks. Therefore modern banks provide their consumers with increased channel choice, reach out consumers through many routes. As such, ATMs, telephone, internet and wireless channels are now available to the consumers to perform their banking transactions in addition to the traditional branch banking. Banks cannot go back in the future by reducing the number of channels as consumers have become somewhat adapted to and indeed are utilizing a broad range of options (Durkin, 2004)

Therefore the present section attempts to address the objectives such as:

To understand what E-banking is.

To look at the evolution of E-banking as a phenomena

To analyze the existing E-banking trends in India.

To identify the opportunities and challenges associated with E-banking.

To suggest future research directions and recommendations.

Often E-banking is defined as web based banking (Hertzum et al., 2004). Deployment of retail or wholesale banking services over the internet is often referred as E banking which involves individual and corporate clients, and includes bank transfers, payments and settlements, documentary collections and credits, corporate and household lending, card businesses and some others (UNCTAD, 2002). Other researchers related E-banking to type of products and services through which bank customers request information and carryout most of their retail banking activities through computer, television or mobile phone (Mols, 1998; Sathye, 1999; Daniel, 1999). E-banking is described as an electronic connection between bank and customers in order to prepare, manage and control financial transactions (Burr, 1996). Since the careful analysis of the secondary data describes that internet banking globally shows a unique uptake.

E-banking means any user with a personal computer and a browser can get connected to his banks website to perform any of the virtual banking functions. In Ebanking system the bank has a centralized database that is web-enabled. All the services that the bank has permitted on the internet are displayed in menu. Any service can be selected and further interaction is dictated by the nature of service. The traditional branch model of bank is now giving place to an alternative delivery channels with ATM network. Once the branch offices of bank are interconnected through terrestrial or satellite links, there would be no physical identity for any branch. It would a borderless entity permitting anytime, anywhere and anyhow banking. The network which connects the various locations and gives connectivity to the central office within the organization is called intranet. These networks are limited to organizations for which they are set up. SWIFT is a live example of intranet application.

Modern scenario projects that E-banking is shaping the financial services industry. Henceforth, it is imperative to understand comprehensively the evolution of E-banking. A brief history and trend analysis of the evolution of E-banking industry globally using document analysis reveals the major barriers, impediments and boosters for the rapid transition of the banking sector and uptake of E-banking. Document analysis is the systematic analysis of a particular topic, using documents such as newspapers, annual reports, employment records, published and unpublished articles, industry and consultancy reports, ongoing academic working papers,

government white paper reports and white papers (Neuman, 1997). In a broader perspective, electronic banking is defined as the provision of banking services via means other than traditional physical branches (Liao et al., 1999). Electronic banking offers its financial services to its prospective customers through various forms such as:

1. Automated Teller Machines (ATM)

2. Telephone Banking

3. Home Banking

4. Internet Banking

5. Mobile Banking

1.8 WHY E-BANKING IS IMPORTANT ?

Understanding E-banking is significant for a few partners, not least of which is the executives of banking related associations, since it encourages them to get assorted advantages from it. The Internet as a station for administrations conveyance is in a general sense not quite the same as different stations, for example, branch organizations, phone banking or Automated Teller Machines (ATMs). In this manner, it raises special sorts of difficulties and requires inventive arrangements.

Numerous banks and different associations have just actualized or want to execute E-banking in view of its various expected advantages.

- **CHOICE AND CONVENIENCE FOR CUSTOMERS**:In the furious fight over clients, giving a novel encounter is the convincing component that - banking. Clients hold the way to progress and organizations should discover what various clients need and give it utilizing the best accessible innovation, guaranteeing that they are following up on the most recent, generally exceptional data. In current business conditions, clients need more noteworthy decision. They need the conventional scope of banking administrations, expanded by the comfort of online capacities and a more grounded center by

banks around creating individual associations with clients (Avkiran1999). Neighborliness and tidiness, acknowledgment as far as welcome, eagerness to offer brief support, capacity to affirmation of blame and express worry for a mix-up is exceedingly significant for bank clients. The majority of these parts of client support can't be robotized. The sufficiency of staff individuals serving clients can be required to straightforwardly impact the consumer loyalties. Nonetheless, E-banking sponsored up by information mining innovations can help in better arrangement of client's requirements and redoing items/administrations as indicated by those necessities. Offering additional assistance conveyance channels implies more extensive decision and comfort for clients, which itself is an improvement in client assistance. E-banking can be made accessible 24 hours per day consistently, and a broad accessibility of the Internet, even on cell phones, implies that clients can direct a significant number of their monetary errands basically anyplace and whenever. This is particularly valid for created nations, yet progressively in non-industrial nations, the spread of remote correspondences implies that administrations, for example, E-banking are getting available.

- **ATTRACTING HIGH VALUE CUSTOMERS -**E-banking for the most part pulls in prominent clients with higher than normal pay and schooling levels, which assists with expanding the size of income streams. For a retail bank, E-banking clients are hence exceptionally compelling, and such clients are probably going to have a more popularity for banking items. The majority of them are utilizing on the web channels routinely for an assortment of purposes, and for some there is no requirement for normal individual contacts with the bank's office network which is a costly channel for banks to run.

- Some exploration recommends that adding the Internet conveyance channel to a current arrangement of administration conveyance directs brings about non-minor expansions in bank productivity (Young (2007). These additional incomes primarily come from increments in non-interest pay from administration charges on store/current records. These clients additionally will in general be of big league salary workers with more prominent benefit potential.

- **ENHANCED IMAGE** - E-banking assists with upgrading the picture of the association as a client centered imaginative association. This was particularly evident in early days when just the most imaginative associations were executing this channel. In spite of its basic accessibility today, an appealing financial site with an enormous arrangement of inventive items actually upgrades - promoting and drawing in youthful/proficient client base.

- **INCREASED REVENUES** -Expanded incomes because of offering e-channels are regularly detailed, in light of potential expansions in the quantity of clients, maintenance of existing clients, and strategically pitching openings. Regardless of whether these incomes are sufficient for sensible Return on Investment (ROI) from these channels is a continuous discussion. It has likewise permitted banks to broaden their worth creation exercises. E-banking has changed the customary retail banking plan of action from numerous point of view, for instance by making it workable for banks to permit the creation and conveyance of monetary administrations to be isolated into various organizations. This implies that banks can sell and oversee administrations offered by different banks (frequently unfamiliar banks) to expand their incomes. This is a particularly appealing opportunities for more modest keeps money with a restricted item range.

- E-banking has additionally brought about expanded Mastercard loaning as it is such a conditional credit that is most effectively deliverable over the Internet. Electronic bill installment is likewise on quick ascent (Young 2007) .It shows that electronic bill installment and other related abilities of E-banking really affect retail banking rehearses and quickly extended income streams.

- **EASIER EXPANSION** -Customarily, when a bank needed to extend topographically it needed to open new branches, accordingly bringing about high beginning up and upkeep costs. E-channels, for example, the Internet, have made this simple as a rule. Presently keeps money with a conventional client base in one piece of the nation or world can draw in. Clients from different parts, as the vast majority of the monetary exchanges don't need an actual presence close to clients living/working spot. In numerous nations banks share their assets, for example, ATMs or utilize mail depots as their

fundamental communication focuses, with clients for administrations, for example, money withdrawal and checks stores.

- **LOAD REDUCTION ON OTHER CHANNELS -**E-Channels are generally programmed, and the vast majority of the standard movement, for example, accounts checking or charge installment might be completed utilizing these channels. This typically brings about burden decrease on other conveyance channels, for example, branches or call focuses. This pattern is probably going to proceed as more modern administrations, for example, home loans or resource account are offered utilizing E-banking channels. In certain nations, routine branch exchanges, for example, money/check store related exercises are additionally being robotized, further diminishing the outstanding task at hand of branch staff, and empowering an opportunity to be utilized for giving better quality client administrations.

- **COST REDUCTION -**The principle financial contention of E-banking so far has been decrease of overhead expenses of different channels, for example, branches, which require costly structures and a staff presence. It likewise appears to be that the expense per exchange of E-banking regularly falls more quickly than that of conventional banks once a minimum amount of clients is accomplished. The exploration around there is as yet uncertain, and frequently repudiating reports show up in various pieces of the world. At present the overall agreement is that fixed expenses of E-banking are a lot more prominent than variable expenses, so the bigger the client base of a bank, the lower the expense per exchange would be. While this infers that cost per exchange for more modest banks would as a rule be more noteworthy than those of bigger banks, even in little banks it is viewed as likely that the expense per exchange is underneath that of other financial channels.

- **ORGANIZATIONAL EFFICIENCY -**To execute E-banking, associations regularly need to re-engineer their business measures, coordinate frameworks and advance lithe working practices. These means, which are frequently pushed to the highest point of the plan by the longing to accomplish E-banking, regularly bring about more noteworthy productivity and dexterity in associations. Nonetheless, extremist authoritative changes are likewise

16

regularly connected to dangers, for example, low representative spirit, or the breakdown of conventional client based administrations.

1.9 TRANSFORMATION OF INDIAN BANKING

The change of banking in the coming years is probably going to be more subjective than quantitative, as per the Banking Industry and Government of India Vision. One significant report likewise bolsters the equivalent. That report has been ready for the Indian Banks' Association by a board of specialists headed by Mr. S. C. Gupta, Chairman and Managing Director, Indian Overseas Bank, in view of the projections made in the "India vision 2020" arranged by the arranging commission and the Draft tenth Plan. The report gauges that the speed of development yet to be determined sheets of banks is probably going to decelerate. In coming years Indian purchasers will see Indian managing an account with worldwide guidelines and ATM will be significant method of cash exchanges. Customer will be less reliant on cash or paper cash on the grounds that effectively executable and secure plastic cash will be helpfully accessible at 24*7*52 and buyer will be more enchanted. Private Banks are likewise expanding their entrance in provincial zones.

The all out resources of all planned business banks by end-March 2010 was assessed at Rs 40, 90,000 crore. That was structure around 65 percent of GDP at current market costs when contrasted with 67 percent in 2002-03. Current worth (as on 31st March 2015) is 570372 billion.

On the obligation side, there is probably going to be huge augmentations to capital base and holds. As the dependence on acquired subsidizes expands, the speed of store development may back off. On the resource side, the speed of development in the two advances and ventures is gauge to debilitate.

1.10 CONSOLIDATION

On the developing impact of globalization on the Indian financial industry, it is normal that the monetary area would be opened up for more noteworthy worldwide rivalry under WTO. Opening up of the monetary area from 2005, under WTO, would see various worldwide banks taking huge stakes and authority over financial elements

in the nation and may attach with Indian banks. They are required to carry with them capital, innovation, and the board abilities which would build the serious soul in the framework prompting more prominent proficiency. Government strategy to permit more noteworthy FDI in banking and the transition to correct Banking guidelines Act to eliminate the current 10% cap on democratic privileges of investors is pointer to these turns of events.

The tension on banks to outfit to meet severe prudential capital sufficiency standards under Basel II and III (International Banking Standards) and the different Free Trade Agreements that India is going into with different nations, for example, Singapore, will likewise affect on globalization of Indian banking. A portion of the Indian banks may likewise arise worldwide players. As globalization opens up promising circumstances for Indian corporate substances to grow their business abroad, banks in India needing to build their worldwide presence could normally be required to follow these corporate elements and other exchange streams out of India.

Close by, the developing tension on capital structure of banks is required to trigger a period of union in the financial business. In the past consolidations were started by controllers to secure the premium of investors of powerless banks. Lately, there have been various market-drove consolidations between private banks.

This cycle is relied upon to acquire force in the coming years and consolidations between open area banks or public area banks and private banks could be the following sensible turn of events, the report adds. Solidification could likewise happen through essential collusions or associations covering explicit territories of business, for example, Mastercards, protection and so on still a few consolidations in Indian banking are under pipeline. For instance as of late, ICICI Bank Ltd. consolidated the Bank of Rajasthan Ltd. to expand its range in country market a lot share altogether. State Bank of India (SBI), the biggest public area bank in India has likewise embraced similar system to hold its position. It is currently getting its partners. SBI combined State Bank of Indore in 2010 and others are probably going to be converged in not so distant future. As of now proposition in such manner is getting looked at in the parliament.

1.11 RISK AND REWARD

The capacity to measure the dangers and take proper position will be the way to effective banking in the arising situation. Daring individuals will endure, compelling danger directors will flourish and hazard loath are probably going to die, the report declares. As review and oversight movements to a danger based methodology as opposed to exchange situated, the danger mindfulness levels of line functionaries additionally should increment. Evaluation of different dangers will be the way to progress.

1.12 TECHNOLOGY

Innovative advancements would deliver stream of data and information quicker prompting quicker evaluation and dynamic. This would empower banks to make credit the board more compelling, other than prompting an obvious decrease in exchange cost. To lessen venture costs in innovation, banks are probably going to resort an ever increasing number of too sharing offices, for example, ATM organizations, the report says. Banks and monetary organizations will consolidate to share offices in the territories of installment and repayment, back-office preparing, information warehousing, etc.

The coming of new innovations could see the development of new players doing monetary intermediation. For instance, as indicated by the report, we could see utility specialist co-ops offering, state, charge installment administrations or general stores or retailers doing fundamental loaning activities. The regular meaning of banking may go through changes.

1.13 SOCIAL BANKING

All these improvements require not mean banks will give the pass to social banking. Banks need to zero in on each part of the general public. RBI and Government of India determined rules to guarantee access of banks up to each area of society particularly provincial regions. Rustic market involves 74 percent of the populace, 41 percent of the working class, and 58 percent of discretionary cashflow. Shopper development is occurring at a high speed in 17,000 odd towns with a populace of

more than 5,000. Of these, more than 50% are packed in only seven states. Limited scope ventures would stay significant for banks in the coming years. Limited scope enterprises for the most part give the work in provincial zones and administration of India likewise started different projects to improve pay of individuals alongside zero equilibrium account in all banks. It has radically expanded the entrance banking in country territories. In future changes could be normal in the conveyance channel for little borrowers, agriculturists and chaotic areas too.

1.14 REGULATION

The normal mix of different delegates in the monetary framework would require a solid administrative system, the report states. It would likewise require various authoritative changes to empower the financial framework to stay contemporary and serious. Underscoring that there would be an expanded requirement for self guideline, the report expresses that advancement of best practices could advance preferable through self-guideline rather over dependent on administrative remedies. For example, to enroll the certainty of the worldwide speculators and worldwide market players, the banks should receive the best worldwide acts of monetary bookkeeping and announcing. It is normal that banks would move to worldwide bookkeeping guidelines easily, despite the fact that it would mean more prominent divulgence and more tight standards, the report adds.

Despite the restricted time ahead, the assumptions, proposals and suggestions of the Banking Industry Vision report are well inside the domain of acknowledgment to some degree or entirety. The principal period of banking changes was resulting from alarm. The subsequent stage can be actualized from a place of solidarity and trust in a compacted time span.

1.15 THE CONCEPT OF ATM

1.15.1 DEFINITION OF ATM

Terminal that replaces a human bank employee and permits the client to get to essential bank administrations, for example, putting aside installments and money withdrawals from far off areas, twenty-machine that naturally gives money and

performs other financial administrations on addition of an extraordinary card by the record holder as such it is an electronic media communications gadget that empowers the customers of a monetary foundation to perform monetary exchanges without the requirement for a clerk, human agent or bank employee.

1.15.2 ATM INVENTORS AND THE FACTS

Throughout the long term numerous individuals have attempted to make a case for the title of "creator of the ATM." Some accept that Luther George Simjian was the innovator since his thought started things out. Some trust it was Don Wetzel; all things considered, he has licenses in plain view in the Museum of American History to demonstrate it. Still others, including the Queen of England, state the designer is John Shepherd-Barron. John D. White has reached ATMmachine.com, sent duplicates of his licenses, and gave extremely persuading proof that he is the designer of the ATM and not Don Wetzel. Ames Good individual of Scotland likewise reached ATMmachine.com and gave his record, including duplicates of nitty gritty licenses, that he ought to be viewed as the designer of the ATM. Jairus Larson reached ATMmachine.com and told that, despite the fact that he didn't design the ATM, he built up the first "on-line" ATM.

Since the patent on an ATM as far as we might be concerned was never applied for until years after Simian, disarray on the creator actually exists. One explanation behind the disarray is that John Shepherd-Barron lived in the United Kingdom, James Good individual in Scotland, while the others lived in the USA.

1.15.3 BRIEF HISTORY OF THE ATM

NCR (National Cash Register is a US-based PC equipment, programming and hardware organization) delivered the primary ATM in Dundee, Scotland. This ATM was introduced by Barclays Bank in north London on June 27, 1967 in Enfield Town. John Shepherd-Barron is credited for the innovation, albeit during the 1930s, George Simjian enrolled licenses in New York, USA, while Don Wetzel and two different specialists from Docutel enlisted a patent on June 4, 1973.

In India, HSBC set the precedent and set up the primary ATM machine in1987 in Mumbai. Later new private area banks have started to lead the pack in presenting ATMs amazingly and the public area banks additionally sought after the establishment of ATMs everywhere on the nation. Practically all the ATMS in the nation are important for NCPI's (Public Payment Cooperation of India) National Financial Switch (NFS) network which encourages steering of ATM exchanges through between availability between the Bank's frameworks, subsequently empowering the ATM/charge cardholders of the nation to use the administrations in any ATM of an associated bank.

The primary cards dealt with different standards including radiation and low coercively attraction, which made extortion more troublesome. The cutting edge ATM card we use today was first tried in the Christchurch locale of New Zealand prior to being offered as a financial assistance somewhere else. ATM clients are recognized by a plastic card containing an attractive stripe. The stripe is encoded the client's record number, which is gotten to by appropriately entering a numeric pass code alluded to as an individual ID number (PIN). On the off chance that a wrong PIN number has been entered erroneously consistently, a few ATM machines will impede the card as a security insurance.

The phone isn't an instrument for correspondence alone however for executing cash moreover. We turned it (read phone) into a monetary instrument. This is for sure a telling discourse on the change in perspective that is occurring in the Indian financial industry today. Robotized Teller Machines (ATMs), tele-banking, money conveyance at home and retail focuses for advances are among the large number of offices accessible to individuals of current India.

For one, clients are looking for comfort and adaptability. For another, banks have wanted to grow and contact more clients without a physical set-up. All these have gone to make a large group of new ideas in the region of hey tech banking. The transformation in data innovation has proved to be useful to push the modernization cycle ahead. ATMs are presently seen to be more than simple money apportioning machines. Clients use ATMs to energize their cell phone prepaid associations, take care of their utility tabs, even common asset exchanges and so on It is making them at standard with adaptability given in web banking just safer. Of the worth added

administrations gave at ATMs, charge installment is the most utilized help, trailed by prepaid portable talk-time revives.

The ATM market in India isn't yet soaked. In spite of the fact that the centralization of ATMs is more noteworthy in metros, the interest is expanding for different urban communities and even provincial territories. It was just 95 ATMs for each million individuals as against 1,390 in the US, 530 in the UK, and 211 in China in June 2013.21 Banks going into a self assistance model can have immense saving potential for banks and may likewise expand the comfort for the clients. Numerous ATM merchants have formulated specific machines.

ATMs have acquired conspicuousness as a conveyance direct for banking exchanges in India. Banks have been introducing ATMs to build their range. More individuals are presently moving towards utilizing the computerized teller machines (ATM) for their financial necessities. As per a study by Bank net. India in 2006, 95% individuals favored this advanced channel to customary method of banking. Practically 60% individuals were utilizing an ATM at any rate once per week. In this examination, the scientist has zeroed in on this expanding pattern of utilizing ATM.

1.15.4 ATM NETWORKS

Centralization of ATM were turned out to be need for better control over ATMs. As ATM SWTICHES, does the job precisely, banks started mounting the ATMs to Switch. This pays the way to the Bank's ATM network. Some banks give a banner name to their ATM's network. For the network, ATMs are connected to switch through VSAT (Very-small-aperture terminal). Operating ATM from remote location of Switch such as software upgrade etc from central place is the major benefit. Due to convenience and round the clock service nature of ATMs, customer prefer ATM services as any time service.

Banking regulator, RBI, versioned to interconnect all the ATM network of banks and thereby has brought 'ATM network of networks' through high end, high load supportive ATM Switch, called National Financial Switch (NFS). "National Financial Switch (NFS) ATM network having 37 members and connecting about 50,000 ATMs was taken over by NPCI from Institute for Development and Research in Banking

Technology (IDRBT) on December 14, 2009. Over the span of few years, NFS ATM network has grown many folds and is now the leading multilateral ATM network in the country. As on 30th June' 20, there were 1,154 members that includes 113 Direct, 984 Sub members, 50 RRBs and 7 WLAOs using NFS network connected to more than 2.49 Lac ATM"[2]. Every circle, in above picture symbolizes individual bank's ATM network. By the introduction of NFS, the restriction or boundary of using bank's ATM by that bank's customers has been broken. Any bank customer can use any bank's ATM, as of now, is facilitated by NFS, making the customer to be the customer of Financial System, instead of a Bank. 'Bank consolidation' by Finance Ministry has been in drive now thereby PSB count comes to 12. Additionally, 'White-color-ATMs' (run by any firm has prescribed sound financial strength, but not a bank) have been permitted by RBI which further strengthens the ATM networks and services.

The Graphic User Interface (GUI) software of the ATM interacts with customer through screen display and take inputs. ATM cards, primarily, are used to identify the right customer. The secret code, Personal Identification Number(PIN) is used by ATMs to authenticate users to use the device. At the advent of ATM, in Indian financial industry, ATMs are attached to branch computerization server, as core banking level has not been achieved. ATM services are preferred channels to customer as this offers Trust / Reliability, convenient, Ease of Use, Security & privacy, Fulfillment and Responsiveness"

1.15.5 CARD NETWORK ASSOCIATIONS

Card affiliations are the associations that permit a bank's card program and give innovation and admittance to different organizations that help in exchanges. These affiliations perform operational capacities for their individuals. China Union compensation, VISA, MasterCard, American express, Diner's Club are among the biggest card affiliations. Between availability of ATM Networks gives admittance to the clients to utilize any ATM in the nation regardless of the saved money with which the client is banking. There are various ATM network switches, for example, Cash Tree, BANCS, Cash net Mitr and National Financial Switch (NFS). What's more, most ATM switches are likewise connected to VISA or MasterCard passages.

India has additionally begun a comparative installment administration for homegrown exchanges known as RuPay. RuPay, another card installment plot dispatched by the National Payments Corporation of India (NPC offer a homegrown, open-circle, multilateral framework which will permit every single Indian bank and monetary foundations in India to partake in electronic installments. The RuPay plot was brought about by the NPCI as an option in contrast to the MasterCard and Visa card plans and to merge and coordinate different installment frameworks in India.

On 8 May 2014, RuPay was committed to India by President of India, Shri Pranab Mukherjee at Rashtrapati Bhavan, New Delhi.

The opposition among banks and the shared installment network frameworks makes certain to positively affect ATM development. The craving to introduce the most recent innovation and create between change expenses likewise persuades banks to build up more machines. The spread of ATMs has generally been in metros and metropolitan zones. Because of public interest, these machines are currently coming up in significant air terminals and other helpful areas.

ATM administrations are, no uncertainty, finding the banks. In any case, a huge segment of the mass portion isn't happy with keeping by means of ATMs. The reasons are not far to look for. For example, it brings up the issue of security.Essentially, reserve move through ATM is likewise exceptionally low. This is on the grounds that most banks don't move assets for utility installment from ledgers. Once more, ATMs in India don't offer altered administrations as in the west. The scene is evolving, by and by.

1.16 IMPORTANCE OF THE RESEARCH

Indian banking during pre-freedom period was bound to profit just couple of families who were administering every one of the exercises of banking however after autonomy in 1947, Government of India assumed responsibility for the whole financial framework and had given the idea of social banking. Keeping in see social financial Indian Government had made two significant strides; nationalization of Indian banks in the year 1969 and 1981. These nationalized banks had contributed a ton toward the advancement of society and Indian economy too. Later on, in the year

1992-93 for the benefit of the suggestions of Narsimhan Committee new financial standards were presented in Indian banking alongside authorizing to private area banks and computerisation of Indian banking in a staged way. To make Indian banking completely mechanized Indian private and public area banks had begun to build up ATMs in significant urban communities of India and in a couple of years ATMs obtained a focal spot in financial practices.

Inside a brief period ATMs access came to up to average person. All the while numerous issues were being looked by the clients and different collectors of banking administrations. These issues have made disappointment among the clients. Keeping in see the ATM banking practices and cusrtomer's fulfillment, the current investigation has been embraced by the analyst. The central purpose of this examination is to work out a successful methodology and healing measures for banks just as clients.

1.17 OBJECTIVES OF THE STUDY

1. To investigate the effect of various administrations given by ATM depending on clients fulfillment.

2. To discover the significant obstacles in ATM banking and to recommend therapeutic approach measures.

3. To distinguish the hole between assumptions for clients and genuine administrations offered by banks

4. To assess the ATM Services given by Public and Private Sector Banks in India.

5. To present significant proposals to propel ATM administration of both public and private area banks.

1.18 HYPOTHESIS

1. H0: There is no essentialness effect of ATM counts on consumer loyalty's.

2. H1: There is centrality effect of ATM Banking on consumer loyalty's.

3. H0: There is no huge contrast between consumer loyalty's of public and private area banks.

4. H1: There is huge contrast between consumer loyalty's of public and private area banks.

5. H0: There is no huge hole between ATM administrations given by banks and assumptions for clients.

6. H1: There is huge hole between ATM administrations given by banks and assumptions for clients.

1.19 DELIMITATIONS OF THE STUDY

- The research is being conducted only through qualitative analysis this will also make the findings very subjective and open to biasness or unfairness. Thus, there will be high chances of unfairness in the findings of the research.

- Interviews will also be conducted on only one bank employee and one student which is also too less to form any conclusive conclusion.

1.20 OUTCOME OF THE RESEARCH

Various researchers have different opinion regarding the various dimensions of service quality of ATM banking and there is no consensus among them. It is also revealed in study that various dimensions are having positive relationship with customer satisfaction and customers consider multiple dimensions while adopting self-service banking technologies. Due to the important role played by the banking sector in India—being one of the sectors that contribute to the national economy—organizations need innovative solutions to improve the value delivered to shareholders and customers in order to gain and maintain a competitive advantage as well as to avoid elimination from the banking sector. Managing supply chain

integration is a solution that has become recently popular. Employees should not hesitate to find the time to serve the customer better, and know what satisfies customers, since all these components relate to giving customers the necessary knowledge and to understanding their specific needs.

1.21 ORGANIZATION OF THE STUDY

Chapter 1: Introduction: The introduction section explains the basic motive of the research along with the aims, the objective and the research questionnaires.

Chapter 2: Literature Review: The literature review takes a detailed dig or deep research on the existing literature and researches being done on the subject, which is about ATM Security.

Chapter 3: Research Methodology: The methodology section assesses the research methodologies being used in the research, such as the purpose, the philosophy, the data collection and so on.

Chapter 4: Data Analysis: This section describes the results or responses obtained from the survey and the interviews.

Chapter 5: Findings, Conclusion And Suggestions: This section analyzes the results and describes the patterns found in the results using a thematic analysis approach.

CHAPTER 2

REVIEW OF LITERATURE

CHAPTER 2

REVIEW OF LITERATURE

2.1 FINANCIAL PERFORMANCE

Different examinations have affirmed that the inception of progression significantly affected the presentation of Indian financial area. The financial structure has experienced a broad extension, revamping and combination over the long haul. The new mechanical advancements like the start of web and versatile banking have changed the situation by and large. Such primary changes positively have affected the monetary presentation of the banks. Studies attempted on the issue have been summed up here:

Shetty (1978) in his examination on "Execution of Commercial Banks since Nationalization of significant Banks-Promise and Reality" had featured the level accomplish by banks to accomplish the destinations decided during the nationalization of banks. It was presumed that structure of stores stayed unaltered and credit-store proportion had demonstrated no improvement over the period. Further, it was accounted for that provincial zones were ignored for opening of new branches.

Divatia and Venkatechalam (1978) proposed to make a composite file by contemplating operational productivity and benefit of individual banks utilizing factor examination method. Complete 15 public area banks were considered utilizing eighteen pointers of efficiency, benefit and social targets. The pointers picked for the investigation were partitioned into efficiency, social goals and productivity. The aftereffects of the examination uncovered that critical contrast was found as far as social commitment, efficiency and benefit.

Varghese (1983) dissected the benefits and productivity of Commercial Banks in India for the period from year 1970 to 1971 utilizing working outcomes, working edges, development yield on resources and spread proportions. The consequences of the examination uncovered that during the time of study Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR) necessities of both Indian and unfamiliar bank bunches were discovered to be same. The huge yield differential between them gives

a proof with respect to the declining efficiency of Indian banks. The investigation reasoned that financial arrangement estimates taken by RBI affected the benefits and productivity of Indian business banks during mid 1970s.

Chakravarthy Committee (1985) while remarking on the operational proficiency of banks communicated the view that the idea of operational skill of business banks in India is connected with different viewpoints in particular cost productivity, benefit, need area propels, client administrations, preparation of stores and credit organization. The council further communicated a need to present some component of value rivalry among banks. The 'controlled rivalry' was suggested by the board in such manner.

Chopra (1987) in her book named "Overseeing Profits, Profitability and Productivity in Public Sector Banking", examined about the changing patterns in benefit of chosen public area banks. It was referenced in the book that it is significant for banks to create systems for improving benefit and furthermore need to work for lessening the expenses for better profit.

Ojha (1987) in his paper talked about the efficiency and productivity of public area banks in India. Subsequent to contemplating different markers of benefit and efficiency the end was attracted that with the increment profitability very little change was seen in the productivity of banks, though Indian banks demonstrated low profitability and benefit, when contrasted and International banks. It was recommended that more extensive and multi-dimensional methodology should be embraced to upgrade efficiency and productivity.

Chawla (1989) in his investigation inspected the arrangement making and the executives rehearses comparable to influence organization of assets in banks with regards to quickly evolving climate. Analyst zeroed in on the targets and procedures of asset the executives. Study depended on definite organized meetings with head of assets and venture divisions led on 26 Indian banks both from both public private area. The investigation uncovered that there were major efficient lacks in the asset the executives arrangement of banks. It was additionally uncovered that holes in arranging, co-appointment and control frameworks likewise should be filled for better administration in banks.

Amandeep (1991) in her postulation named, "Benefits and Profitability of Indian Nationalized Banks" inspected that banks assume a significant part being developed of the economy and impact the financial change. It was discovered that productivity of banks is subject to two components for example spread and weight. A portion of different components which are considered as the determinants of benefit were need area loaning, topographical extension, increment in costs, credit strategy and store structure and so on Further, it was uncovered that to expand the degree of pay banks need to sufficiently charge on non-store administrations, for example, consultancy, figuring administrations and shipper banking.

Advisory group on the Financial System (1991) named by the GOI (Narasimham Committee) in 1991 analyzed the cost synthesis and adequacy of the capital structure of monetary establishments and chipped away at the parts of different kinds of monetary organizations in a monetary framework. Advisory group suggested capital sufficiency standards, prudential standards for money acknowledgment, provisioning for terrible obligations, straightforwardness of bank monetary records and liberal branch authorizing strategy as approaches to improve productivity and adequacy of the framework.

Kaushik (1995) in his theory named, "Social destinations and productivity of Indian banks," endeavored to contemplate the impact of social duty on benefit of Indian Banking Industry. Different factual methods like proportion investigation, yearly development rates, relapse examination, and relationship examination were utilized to contemplate the ramifications of social commitments on bank's productivity. Further, benefit of Indian banks was estimated utilizing different strategies like level of working assets, complete business and absolute stores, while beneficially was decided by ascertaining credits per representative, stores per worker, all out business per representative, stores per branch, advances per branch and all out business per branch. It was presumed that social variables are not answerable for any adjustment in benefit of the Indian business banks.

Thomas (1995) in his proposition named "Execution Effectiveness of Nationalized Banks – A Case Study of Syndicate Bank" broke down the presentation of Syndicate Bank for a time of a long time from 1984 to 1994 utilizing EMEE model. Execution viability was concentrated on different viewpoints like turn of events and

32

development of banking industry, change in capital sufficiency, resource quality, benefit, efficiency, social banking and client assistance. In the wake of concentrating all perspectives and contrasting the presentation adequacy of Syndicate Bank with other nationalized banks, it was discovered that five nationalized banks demonstrated low wellbeing execution, seven indicated low need execution and other eleven indicated low proficiency in correlation with Syndicate Bank.

Das (1997) in his investigation on "Estimation of Productivity, Efficiency and its Decomposition in Indian Banking Industry", analyzed the fitness of 65 business banks utilizing cross area information for year 1995. On dissecting the information it was discovered that Indian banks are in fact skillful and there are no critical contrasts in effectiveness proportions of public and private banks separated from the size of proficiency.

Athma (1997) in his proposal, "Execution of Public Sector Commercial Banks – A Case Study of State Bank of Hyderabad," considered the exhibition of State Bank of Hyderabad (SBH) from year 1980 to 1994. The investigation was directed dependent on the boundaries like advances, store assembly, credit-store proportion, premium spread, representative profitability, benefit to working assets and client administrations and so on It was presumed that the benefits of bank demonstrated a rising pattern, speaking to in excess of a proportionate ascent in spread in contrast with trouble. Further it was considered that decrease in working expense was the away from for expanding efficiency of banks.

Subramanian et.al, (2001) in their book named "Operational Efficiency of Banks – Banking in India in the New Millennium; Issues Challenges and Strategies", uncovered that Bank of Baroda from public area banks and IndusInd from private area banks indicated most noteworthy working benefit per bank representative, while wide variety productivity was found in among nationalized banks.

Bisht et.al, (2002) contemplated the effect of progression on the Indian financial area. They were of the view that common financial framework is a result of three significant stages for example prior to nationalization, after nationalization and post progression. After the start of web, tremendous primary changes, for example, presentation of electronic conveyance channels rather than physical branches had

given more alternatives to the clients. The quantum jump in innovation had changed the standards of the game. It was inferred that on the off chance that Indian PSBs need to endure, at that point they need to consolidate the new innovation to build in general proficiency, efficiency and productivity.

Das and Lal (2002) basically assessed the Lead Bank Scheme in the light of Banking Sector changes. It was uncovered that rising Non-performing resources (NPAs), over staff, low benefit and customary strategies for activities had been one the purposes behind low proficiency of banks. Study uncovered that to get by in the opposition it is compulsory that financial area ought to be changed according to the developing need of clients. It was likewise expressed that rustic zones ought to be covered so an ever increasing number of individuals can go under the umbrella of banking.

Patak (2003) attempted to study and think about the monetary presentation of private area banks from year 1996-97 to 2000-01 utilizing four significant boundaries for example monetary proficiency, operational adequacy, benefit and profitability. IndusInd Bank, HDFC Bank, ICICI Bank and UTI Bank were chosen as the example of the examination to quantify the monetary presentation of banks. In the wake of examining it was set up that working of banks was sufficient however HDFC Bank arose as the top entertainer followed by ICICI Bank.

Mohan et.al, (2004) in their investigation named, "Profitability, Growth and Efficiency in Indian Banking – A Comparison of Public, Private and Foreign Banks", processed Data Envelopment Analysis (DEA) based effectiveness scores of 58 banks from year 1992 to 2000. On assessing it was discovered that public area banks performed impressively well than private area banks however unfamiliar banks were discovered to be better in income amplification. Further the examination uncovered that public area banks were known for higher specialized productivity and State Bank of India was evaluated the most effective among any remaining banks.

Prasuna (2004) dissected the presentation of Indian banks utilizing the CAMEL Model. The exhibition of 65 banks was read for the period 2003-04. The creator presumed that the opposition was hard and customers profited by it. Better help quality, imaginative items, better deals are on the whole welcome the Indian clients.

The coming financial will end up being a development period of Indian banks, as they should adjust their essential concentration to expanding loan fees.

Mohan and Ray (2004) in their article named "Looking at Performance of Public and Private Sector Banks: A Revenue Maximization Efficiency Approach" made an examination of execution between open, private and unfamiliar banks from 1992-00. The discoveries of the examination indicated that public area banks were discovered to be nearly in a way that is better than private area banks yet unfamiliar banks had an advantage over open area banks. In this examination, a correlation of public, private and unfamiliar banks in India had been made utilizing information envelopment investigation (DEA). In DEA, actual amount of data sources and yields were utilized. Subsequently proportions of proficiency dependent on yield input amounts may have been more reasonable. In the Indian setting, the methodology of utilizing stores and advances as yield had been suitable in the nationalized time while amplifying these was surely the reason for a bank. However, the principle business of the banks is to boost their benefits. Interest cost and working cost are treated as contribution during the hour of augmenting income. It was reasoned that the better exhibition of public area banks (PSBs) is to be ascribed to higher specialized fitness as opposed to high dispense effectiveness.

Arora and Verma (2005) directed an investigation to evaluate the exhibition of public area banks during the change time frame. Statistical data points of 27 public area banks was gathered year 1992 to do the investigation. Investigation was performed based on four boundaries for example monetary boundaries, operational boundaries, benefit boundaries and efficiency boundaries. It was discovered that the presentation of PSBs genuinely satisfactory during the examination time frame. It was presumed that significant advances like prudential standards, pay acknowledgement provisioning ought to be taken to eliminate shamefulness from banking. Further it was proposed that to address the effect of coordinated ventures on productivity hold prerequisites ought to be diminished.

Chakrabarti and Chawla (2005) endeavored to gauge bank proficiency in India to assess the general effectiveness of Indian banks during the period 1990-2002. Utilizing the DEA model it was discovered that from esteem point of view unfamiliar banks were discovered to be more proficient than public and private area banks, while

if there should be an occurrence of amount private area banks were doing sensibly acceptable than unfamiliar banks. Further it was reasoned that unfamiliar banks give more accentuation on getting huge organizations as opposed to obliging more extensive segment of society while public area banks appear to linger behind their private partners.

Bodla and Verma (2006) inspected the exhibition of business banks in India from year 1987-88 to 2003-04 utilizing accumulate yearly development rate (CAGR) of stores and advances, store per worker, propels per representative and NPA to Net Advances. On breaking down the presentation it was discovered that financial area had indicated immense upgrade after advancement. Private and unfamiliar banks were in front of public area banks as far as totally chose boundaries.

Bhayani (2006) did a similar report on the exhibition of new private area banks from year 2001 to 2005 utilizing CAMEL model. To direct the investigation four significant private area banks (ICICI Bank, HDFC Bank, UTI Bank and IDBI) were chosen as test and CAMEL model was applied to rank them according to their exhibition. The examination indicated that aggregate presentation of IDBI bank was best among every one of the four banks followed by the UTI bank. .

Bodla and Verma (2006) in their paper made an endeavor to inspect and analyze the presentation of two biggest banks of India - SBI, a public area bank; and ICICI a private area bank - through CAMEL Model. Different proportions were figured under every boundary of CAMEL Model in order to register the general positioning of the banks from 2000-2005. It was seen that both SBI and ICICI were performing superbly since start of the 21st century. Be that as it may, in certain boundaries like G. Protections to Total Investments, Spread to Total Assets, Interest Income to Total Income, Liquid Assets to Total Assets and G. Protections to Total Assets SBI had outflanked ICICI bank. Conversely, ICICI had shown improvement over SBI as to Advances to Assets, Total Advances to Deposits, Business per Employee, Profit per Employee, Non-interest Income to Total Income, Liquid Asset to add up to Deposits and so forth The examination uncovered that overall, ICICI bank had performed in a way that is better than SBI.

Gopal and Dev (2006) exactly inspected the efficiency and benefit of chosen public and private area banks in India. During the examination the impact of globalization on efficiency and benefit was read for the period going from 1997 to 2004. Five banks each from both public and private area were chosen for the further investigation based on store assembly. The Study uncovered that aside from few cases, the profitability file came about to be more noteworthy than the one in the chose banks. Regarding benefit, SBI and Punjab National Bank (PNB) were superior to HDFC Bank and ICICI Bank, however the exhibition of J&K Bank, Canara Bank constantly of India was poor as far as accomplishments. Interest spread came into see as the lone solid factor affecting the benefit. A serious level of positive relationship among efficiency and benefit during the investigation time frame shows the better use of accessible assets.

Arora and Kaur (2006) assessed the exhibition of banking area in India during the post-changes time frame. The private area banks, unfamiliar banks, nationalized banks, and SBI and its partners were chosen for the itemized study. The seven key exhibition markers to be specific profits for resources (ROA), capital resource, hazard weighted proportion, NPA to net advances, business per representative, net benefit proportion, NPA level and shaky sheet activities were considered utilizing the information of 9 years for example from 1996-2005. The investigation uncovered that there was outstanding advancement in the financial area especially in PSBs yet these bank bunches were sheathing behind some significant territories, for example, resource quality, business per worker, capital sufficiency prerequisites and productivity. It was proposed that public area banks need to oversee working cost, staff cost, Human Resource Development (HRD), limit NPA, send assets in quality resources, up-grade required innovation, present danger the executives methods, and adjust market-driven methodology, relationship the board and credit conveyance component and so on for improving the effectiveness of banks. With India getting progressively incorporated with the monetary world, the Indian financial area has still far to go to make up for lost time and battle with their partners in the west.

Srivastav (2006) presumed that the post nationalization period saw an extraordinary extension of Banking industry in India. Be that as it may, to the issues of shortcoming and poor monetary wellbeing and furthermore to build up the viability of banks,

different structural measures had been taken since 1991. This has prompted the upgrade in efficiency, productivity and reinforcing of monetary situation of the banks such a lot of that they outflanked those of cutting edge countries.

Jain (2006) in his article named, "Proportion Analysis: An Effective Tool for Performance Analysis in Banks" talked about different proportions identifying with benefit of the banks. Proportions were ordered under three classifications probably Costing Ratio, Returns/Yield Ratio and Spread Ratios. These proportions could be utilized to comprehend a bank's monetary condition, its activity and allure as a venture. He clarified that such proportion examination can be utilized to make a between branch correlation for exploring the qualities and shortcomings of individual banks and to empower them to take vital choices and start vital restorative activities. Under costing proportion, the creator supported for computation of normal expense of stores, normal expense of borrowings, normal expense of revenue bearing liabilities, normal expense of assets and working costs to average working funds. Similarly under yield/return classification, he processed proportions like yield on advances, yield on venture, normal profit for revenue income, normal profit for reserves and non-interest pay to average working assets and all out pay. Under spread class, he sub-classified the proportions like interest spread, net interest edge and weight proportions. The creator talked about the importance of proportion investigation as a device for assessing the presentation of various banks/bank offices. Aside from benefit proportions, the creator referenced the accompanying classes of proportions for undertaking similar execution of banks, for example Profitability Ratios, NPA Ratio, Efficiency Ratio, Ratios on Shares (Shareholders front).

Business India (2006) organized a board conversation to pass judgment on the best bank in the Indian financial area based on certain chose factors. With the end goal of the board conversation, Business India took a gander at 24 banks. The choice depended on size and perceivability. The specialist picked 24 competitors from every one of the three classifications of banks – people in general, private and unfamiliar banks. The specialists chose a couple of wide boundaries to assess the competitors in the first round to deliver a short rundown. Such boundaries included monetary and operational execution, quality administration, the making of a stage for development, esteem manifestations and how the investors had responded to the equivalent. In

Round-I, thirteen banks were short recorded; and during Round-II, six banks were chosen; lastly in Round-III, two banks, i.e., HDFC Bank and ICICI Bank contended with one another. Both the banks were assessed based on CRAMEL Model for example capital ampleness, assets conveyed, resources quality, the board productivity, acquiring quality and liquidity. At long last, ICICI Bank was chosen Business India's Best Bank for 2006. On current structure, it is just a short time before the ICICI bunch arose the nation's greatest monetary force to be reckoned with. In a few of the business lines, it had fabricated huge pieces of the pie, be it home credit or vehicle advance or protection. Inside five years of transforming into undeniable bank, it has indicated the world that India can fabricate elite organizations.

Vradi et.al, (2006) in his investigation on estimation of effectiveness of banks in India inferred that in current world presentation of banking is critical to balance out the economy. Study was led to look at the effectiveness of public and private area banks from the year 1999-2000 to year 2002-2003. Advancement Envelopment Analysis was done to measure the proficiency of banks dependent on four pointers specifically benefit, profitability, resources quality and monetary administration. Study uncovered that in all boundaries public area banks were discovered to be more effective than private area banks.

Shankar (2007) in her examination dissected the score of private area banks over open area banks in India. It was seen that private area banks had made noteworthy development during mid 1990s and between year 2002 to 2007 private banks experienced quick branch expansion and had expanded their pay, resource size, capital, stores and excess, stores, advances and net benefit. Centurion Bank of Punjab, HDFC Bank, ICICI Bank and Axis Bank extended their branches at a quick pace of 14-16 percent p.a. as far as compound development rates and expansion in staff strength. The examination uncovered that a development of very nearly multiple times was seen when public and private area banks were contrasted and all booked business banks. Further it was seen that public area banks declined in number of representatives due to smoothing out and usage of IT framework.

Sundaram et.al, (2008) in their "on Efficiency of Scheduled Commercial Banks in India – An Analytical Study", dissected different boundaries, for example, stores, propels, net benefit, spread, foundation costs, working asset, complete costs, business,

all out pay, and weight in setting of branches and representatives, for the period from 1995 to 2004-05. The examination uncovered that private area banks indicated higher development as far as stores, progresses, net benefit, spread, working asset, all out costs, business and weight, though SBI and its partners were discovered to be driving in foundation costs and absolute pay than different banks. If there should be an occurrence of private area banks all out pay was high and foundation costs were low than different gatherings.

Suryachandra (2008) assessed the presentation of business banks (Public area banks and private area banks) in India since banking area changes. On contrasting it was discovered that both public and private area banks demonstrated progression in the general presentation after changes. It was additionally discovered that because of endorsed prudential standards monetary wellbeing of banks got improved and passage of new private area banks had likewise raised the assumptions for clients.

Ketkar (2008) inspected the productivity of Indian Banks since the change time frame utilizing DEA strategy. Optional information from year 1997–2004 was gathered to process the proficiency of banks. The outcomes uncovered that the similar productivity of banks by proprietorship doesn't fundamentally rely on whether stores are treated as an information (intermediation approach) or yield (creation approach). It was uncovered that unfamiliar banks were the more productive than new private area banks. Further it was discovered that orders of need area loaning have harmed the effectiveness of state possessed and nationalized banks however bank office development orders have not.

Chauhan and Paul (2009) in their investigation on "Relative Efficiency of Indian Commercial Banks" talked about the nature and degree of relative specialized viability from 1990-2008. Specialists had utilized worth expansion approach and pay way to deal with study the specialized productivity of Indian Banks. The examination uncovered that dominant part of business banks performed great regarding pay approach before advancement, however after progression proficiency of public area banks dropped because of passage of private area banks.

Raju and Acharya (2010) inspected the expense of value for significant banks in India in the wake of monetary emergency. Cost of value was assessed dependent on

single factor Capital Asset Pricing Model (CAPM). The investigation uncovered that the expense of value had expanded for practically all Banks particularly in year 2008 with a negligible decrease in year 2009. In any case, the ascent in expense of value was mostly connected with an ascent in the danger free rate and incompletely because of upgrade in the affectability of bank stock re-visitations of market hazards.

Uppal (2010) endeavored to contemplate the productivity of Indian Commercial Banks from the period between 1998-2008. It was discovered that benefit and profitability of new private area banks and unfamiliar banks was superior to public area banks, though liquidity position of these bank bunches was likewise stable than public area banks.

Sangmi and Nazir (2010) put forth an attempt to assess the monetary exhibition of Punjab National Bank and Jammu and Kashmir Bank utilizing optional information from year 2001 to 2005. The purposive choice of banks was finished keeping in perception their job and relationship in forming the monetary conditions regarding progresses, stores, work, branch network and so on Factual strategies, for example, mean and standard deviation were utilized to dissect the information. The investigation of the examination uncovered that both the banks were monetarily stable as both had received better monetary administration strategies. It was additionally reasoned that position of the banks was sound and acceptable so far as their capital sufficiency, resource quality, the board capacity and liquidity was concerned.

Choudhary and Tondon (2010) in an examination on "Execution Evaluation of Public Sector Banks in India" made an undertaking to analyze monetary execution of public area banks in India. The investigation depended on optional information gathered from yearly reports of banks covering the period from year 1997-2007. The most famous proportions for example Profit for Equity, Return on Assets, Interest Expended to Total Assets, Interest Earned to Total Assets, Spread Ratio and NPA Ratio were determined to quantify monetary execution and further the processed proportions were contemplated utilizing accumulate yearly development rates (CAGRs) and coefficient of variety (CV). It was reasoned that CAGR of various factors indicated variety from bank to bank. State Bank of Indore had greatest CAGR in the event of complete advances, absolute stores and all out resources. Punjab and Sind Bank indicated least development of stores and advances and State Bank of India

had least development of stores. Further the examination demonstrated that if there should be an occurrence of United Bank of India, return on value and profit for resources were at top while Dena Bank, Punjab and Sind Bank and Indian Bank indicated negative pattern. On count of NPA proportion it was discovered that NPA proportion was most elevated in the event of State Bank of Hyderabad and least if there should arise an occurrence of Dena Bank. Based on these discoveries it was proposed that public area banks should attempt to update themselves on innovation front and ought to detail client amicable strategies to confront rivalry at public and worldwide level.

The Analyst Magazine (2010) directed an examination to assess the monetary exhibition of 64 banks (public area banks, private area banks and unfamiliar banks) utilizing the CAMEL model. The investigation led depended on the boundaries in particular, resource quality, the executives quality, income quality, liquidity and capital sufficiency. The examination uncovered that in private area banks, Tamil Nadu Mercantile Bank was discovered to be acceptable regarding liquidity, while Yes Bank and Kotak Mahindra Bank were ahead as far as resource quality and the board quality separately. In the event of public area banks, Canara Bank, Andhra Bank, Bank of Baroda and State Bank of Patiala were discovered to be acceptable at capital sufficiency, resource quality, the board quality and liquidity separately. Further the examination uncovered that Tamil Nadu Mercantile Bank from private area and Andhra Bank from public area were positioned best in by and large execution.

Srivastav et.al, (2011) inspected the monetary strength and sufficiency of AXIS bank regarding capital ampleness just as the adequacy of the monetary proportions used to evaluate the presentation by applying relationship and T-test. It was seen that raising of non-value capital had helped the bank proceed with its development system and had fortified its capital ampleness proportion. Further it was additionally discovered that by appropriate planning of credit, operational and market danger to project business development empowered task of capital that enough covered the base capital necessity as well as given headroom to development.

Siraj (2011) counted the presentation of Indian Scheduled Commercial Banks during worldwide monetary emergency. The examination depended on the auxiliary information gathered from year 1990 to 2011. The investigation showed the

shortcoming of Scheduled Commercial Banks during monetary emergency, expressing that different pointers that reflect effectiveness of banks were influenced during the monetary emergency. A remarkable finding was the monetary steadiness of public area banks and expanded shortcoming of private area and unfamiliar banks during the monetary emergency.

Singh and Tondon (2012) analyzed the monetary exhibition of SBI and ICICI bank utilizing the auxiliary information from year 2007-08 to 2011-12. Analyst made a decision about the monetary exhibition of banks utilizing the strategy of proportion investigation. Measurable apparatuses like mean and accumulate development rate (CGR) were determined to break down the patterns in productivity of banks. The investigation presumed that SBI indicated great execution and was monetarily sounder than ICICI Bank however in setting of stores and consumption ICICI Bank would be wise to authoritative effectiveness than SBI. Further it was additionally uncovered from the examination that financial client have more trust on the public area banks when contrasted with private area banks.

Rana (2012) led a relative investigation of monetary administration of PNB and ICICI Bank to assess and look at the monetary exhibition of both the banks. In each of the 26 boundaries was examined utilizing proportion investigation. From the discoveries of the examination it was reasoned that ICICI Bank has metropolitan spotlight while PNB zeros in additional on Semi Urban and Rural Areas. Further the examination uncovers that contemplating the various boundaries it is hard to rank the first and second situation among these two banks.

Kaur (2012) inspected the monetary exhibition of public and private area banks utilizing optional information from year 2009-10 to year 2010-11. To satisfy the reason for the examination 10 banks (5 from public area and 5 from private area) and 8 boundaries (Growth in Credit-Deposit Ratio, Net worth, Deposits, Advances, Total Income, Total Expenses and Size of Total Assets) were chosen to ascertain the monetary exhibition. The examination discoveries uncovered that banks had indicated development in Credit Deposit Ratio, Net Worth, Deposits, Advances, Total Assets, Total Income and Net Profit aside from State Bank of India as it demonstrated negative development in Net Worth and Net Profits. Further it was discovered that

general exhibition of public area banks was discovered to be superior to private area banks over the time of the investigation.

Singh (2012) in a near report on monetary execution of HDFC and State Bank of Patiala (SBOP) investigated productivity angles and analyzed the benefit of both the banks. To gauge a similar auxiliary information from the period 2004-05 to 2009-10 had been gathered utilizing the yearly reports of banks. Different markers like interest cost to add up to pay, interest pay to add up to resources, interest pay to add up to pay, return on value, return on advances, return on resources, overall revenue, resource use and need area advances to add up to progresses were examined utilizing proportion examination. The examination uncovered that if there should arise an occurrence of benefit the presentation of HDFC bank had been discovered better when contrasted with the SBOP.

Naidu (2012) led an auxiliary report on monetary execution of Andhra Bank in India covering the period from year 2006 to 2010. To quantify the monetary presentation Compound Annual Growth rate (CAGR) and Coefficient of Variation of boundaries like all out consumption, complete resources, all out liabilities, premium acquired to add up to subsidize, premium used to add up to resources, spread as level of absolute asset, Interest procured, non premium use, net benefit to add up to reserves rate, and benefit before arrangements to add up to resources rate , and spread were determined. On investigating it was discovered that the proportions like revenue procured, all out use, and net benefit to add up to reserves had indicated ruins which lead to the abatement in productivity while because of the lessening in revenue use proportion and Burden proportions got expanded. Further it was recommended that banks need to patch up their methodologies considering their own qualities to create themselves locally and globally.

Verma et.al, (2013) in their investigation named "Benefit of Commercial Banks after the Reforms: A Study of Selected Banks" talked about the 7 components which influenced the productivity of the banks. To perform productivity investigation optional information from year 2008 to 2012 of four significant banks specifically, Punjab National Bank, State Bank of India, ICICI Bank and Federal Bank was gathered and factual instruments like Mean, Standard Deviation, Coefficient of Variation and Ratios applied to break down and look at monetary execution of chose

banks. Investigation of the examination uncovered that the benefit of different bank bunches working in India impressively varied one another. It was inferred that private area banks were performing much better on monetary boundaries of Interest Income, Non Interest Income and Wage Bill, though open area banks had been discovered to be serious enough so far as monetary boundaries like working costs, need area advances to add up to propels were concerned. It was recommended that estimates should be taken to shorten the weight and to expand the asset based exercises to build the degree of spread.

Vadivel and Ayyappan (2013) in their investigation named "Monetary Efficacy of Selected Public and Private Sector Banks in India" investigated the relationship between's profit for complete resources and other monetary factors of chosen private and public area banks in India. To investigate the optional information connection examination was performed to consider the connection between two factors. In the investigation connection examination demonstrated that there existed a critical relationship among the chose factors and profit for all out resources in both positive and negative manners. Further it was likewise seen that the factors which were positive in nature would straightforwardly improve the productivity of the business where as negative relationship showed that the investors expected to focus more on those proportions which improved benefit in future.

Soltani et.al, (2013) while "Assessing the Performance of Public and Private Banks and Providing Suggestions for Improving the Performance of Them" assessed and thought about the monetary exhibition of public and private banks of Qom city of Iran. Melli and Agriculture Bank as open and Parsian and Parsargad Bank from private area were chosen for the examination. A five dimensional CAMEL model was chosen to gather auxiliary information and assess the monetary exhibition of every one of the four banks. In the wake of dissecting the information it was discovered that there existed a critical contrast among private and public banks regarding liquidity, acquiring execution and the board quality. It was judged that as far as liquidity and procuring execution the private banks were better while public banks indicated better outcomes regarding the executives execution. Further the investigation uncovered that private banks should attempt to improve their exhibition.

Gupta and Sikarwar (2013) led an examination to gauge the development pace of Punjab National Bank and HDFC Bank for a period a long time from year 2000 to 2010. Specialist utilized Net Profit Growth, Net Assets Growth, Earning per Share (EPS) Growth and Reserve and Surplus Growth to gauge and think about the development pace of public and private banks. Subsequent to thinking about all the boundaries it was uncovered that throughout 10 years time HDFC Bank had performed obviously superior to Punjab National Bank.

Rani et.al, (2013) in "Studies on Growth and Performance of Indian Commercial Banks during Global Economic Recession", talked about the exhibition and development of various classifications of Indian business banks during the time of worldwide emergencies and after the time of worldwide emergencies for example from year 2009 to 2012. The investigation depended on the boundaries, for example, stores, speculations, propels, all out resources, net NPA, net NPA, premium pay, other pay, premium extended, working costs, complete use, working benefit, net benefit, credit store proportion, and venture store proportion. Measurable Package for the Social Sciences (SPSS) was utilized to break down and look at the monetary presentation utilizing the chose boundaries. The investigation uncovered that during the period State Bank of India performed far superior to other public area banks, though among new private area banks just 7 banks demonstrated the expanding pattern. On inspecting the total investigations it was presumed that SBI and 7 new private area banks would be advised to administrative efficiencies than the other Indian business banks.

Pandya (2014) attempted to discover the determinants of productivity of chose nationalized banks (Bank of India, Central Bank, Punjab National Bank, Canara Bank and Dena Bank) of India over the time of 2001-02 to 2010-11. Factual procedures, for example, connection investigation, various relapse method, factor examination and pattern examination were utilized to dissect the information. The investigation uncovered that the significant determinants of productivity of chose nationalized banks vary for each bank and had been distinguished independently for each bank. According to the examination the factors which most ordinarily impacted the benefit of all chose nationalized banks were Overall Business Productivity Factor, Ratio of credit to add up to store, Ratio of need area to add up to progresses, Wages as % to

add up to costs, Business per worker, benefit per representative and Net NPA proportion to net advances. Further it was seen that productivity was continually diminishing till year 2007-08 yet after that slight increment was seen in significant proportions.

The audit of writing shows that numerous specialists broke down the monetary presentation of business banks based on different boundaries. These examinations were not quite the same as one another concerning time of study, test of banks, boundaries and measurable methods. The surveys uncovered that the greater part of the investigations had been led without considering any significant strategy change. The current investigation had been led from year 2005-06 to 2014-15 taking the reference of monetary consideration plan presented in 2005-06. Subsequently, relative execution of public and private area banks had been concentrated to talk about the presentation and most recent improvements till year 2015 and overcome any barrier in existing writing.

2.2 FINANCIAL INCLUSION

Monetary incorporation is the conveyance of monetary administrations at moderate expenses to huge segments of impeded and low pay gatherings. In Indian setting, monetary incorporation can be characterized as "the way toward guaranteeing admittance to convenient and sufficient credit and monetary administrations by weak gatherings at a moderate cost" Union Budget (2007). Discoveries of the examinations led on monetary comprehensiveness have been summed up beneath:

Hassan (1997) in an examination on "The Experience of the Grameen Bank (GB) of Bangladesh in Community Development" talked about the job which Grameen Banks played to battle against monetary prohibition. It was demonstrated that very destitute individuals who don't have any security can get little advances from GBs just in the event that they structure gathering of five individuals. Under this plan every individual from bunch gets singular advance, anyway they are commonly answerable for each of the five credits. It was discovered that generally ladies from provincial helpless gatherings get this credit from GB's and loaning cash to ladies has to a great extent improved recoverability for GB's advances.

Human Development Report (2006) in the article referenced that India is a standout amongst other truly sprouting economies of the world yet at the same time the advantage of this development has not being passed to individuals living in rustic territories of India. It was featured in the article that around 350-450 million individuals or 70-80 million families had been profited by this development. India has the biggest total number of world's poor as revealed in Human Development Report.

Mohan (2006) in his paper looked at the degree of monetary rejection in India and abroad. It was expressed that the degree of monetary avoidance was 9% in USA, 1% in Denmark, 10.4% in Europe, 53% in Botswana, 57% in Brazil, 68.3% in South Africa, 71.6% Namibia and 78.7% in Mexico. In contrast with abroad, the degree of monetary rejection in India was above 75% in Meghalaya, Arunachal Pradesh, Uttrakhand, Assam, Mizoram, Manipur and Jharkhand; half to 75% in Bihar, Chhattisgarh, Himachal Pradesh, Jammu &Kashmir, Nagaland, Orissa, Sikkim, Tripura, Uttar Pradesh; 25% to half in Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, West Bengal and beneath 25% in Andhra Pradesh.

Sinha and Subraniam (2007) in their examination named, "The Next Billion Consumers: A Road Map for Expanding Financial Inclusion in India" checked the degree of monetary incorporation according to the enumeration report distributed in 2001. It was discovered that solitary 36% individuals access some sort of banking administrations and the monetary consideration in India likewise confirms that monetary prohibition mirrors the antagonistic financial gap that describes the developing business sectors.

Report of the Committee for Financial Inclusion (2008) characterized monetary incorporation as "the way toward guaranteeing admittance to monetary administrations and opportune, sufficient credit where required, to weak gatherings, for example, more fragile areas and low pay gatherings, at a reasonable expense."

Rangarajan Committee (2008) while examining monetary incorporation, recognized that, "Monetary consideration might be characterized as the way toward guaranteeing admittance to monetary administrations and opportune and satisfactory credit where required by weak gatherings, for example, more vulnerable areas and low pay

bunches at a reasonable expense." According to the council factors which decide monetary administrations were reserve funds, advances, protection, credit, installments and so forth Board of trustees expected that monetary framework ought to be intended to move abundance from surplus to shortfall units. This exchange of assets from surplus to deficiency units will assist the retrogressive class with emerging from destitution.

Sarma and Paise (2008) analyzed financial variables which influence the monetary consideration in a nation. It was uncovered that pay is emphatically related with the degree of monetary incorporation. Different factors, for example, electronic availability and data openness, street organization, phone and web use likewise assume imperative job in improving monetary incorporation.

Bhole and Mahakud (2009) in their book named, "Monetary Institution and Markets (Structure, Growth and Innovation)", examined the manners by which monetary consideration can be encouraged in India. Opening of ledger and formal credit markets were the two different ways referenced in the book which could help advance monetary consideration. It was referenced that 59% of the grown-up populace had ledgers and 49% of the grown-up populace were unbanked. Further, the creator portrayed that rejection from credit markets was substantially more, as the quantity of advance records comprised just 14% of the grown-up populace. In provincial territories the inclusion was 9.5% against 14% in metropolitan zones.

Kochhar (2009) in his examination on monetary incorporation found that out of 25 million records opened between April first 2007 and May 30th 2009, just around 11 percent were operational. Study presumes that no direction was given with respect to how to utilize the record and the administrations offered with them. The investigation showed that a significant number of the records were opened to simply accomplish the monetary consideration targets and numerous different records were opened under "Mahatma Gandhi National Rural Employment Guarantee Act (NREGA)" with a guarantee that all the installments will be made through records in banks and mail centers. Further, the examination uncovered that exchange expenses of straightforward records for banks were high, making them an unviable alternative. It was likewise investigated that client additionally pays high exchange expenses of visiting the bank office and working the record which prompts its low utilization.

Ramaji (2009) attempted to discover the use of monetary administrations delivered under monetary incorporation drive in Gulbarga area of northern Karnataka which is viewed as quite possibly the most in reverse locale of the state. Essential study of 999 respondents from 50 towns was led utilizing organized poll. Study uncovered that around 36% of the example remained prohibited from any sort of formal or semi proper investment accounts. Further NREGP plot, which was actualized in the region was simply used to get government installments while its formal and mindfulness towards it stayed low. It was discovered that Self Help Groups (SHG) remained the most mainstream methods for reserve funds rather than formal financial plans. As access doesn't mean utilization, henceforth it was reasoned that the public authority needs to make strategies on monetary proficiency and promoting to make individuals utilize their financial balances.

Massey (2010) endeavored to recognize the part of monetary foundations in advancing monetary incorporation in India. He expressed that monetary organizations need to assume a fundamental part to support monetary consideration in India. Study uncovered that monetary education was one of the significant boundaries for advancement of monetary incorporation. It was found that 50% of the reserve funds of family area and monetarily uneducated were depleted into non monetary ventures.

Kumar (2010) in his examination named "The Up scaling Technology to assemble comprehensive Financial System in India" said that the target of monetary incorporation is to expand the degree of exercises to incorporate the unbanked and low pay bunch individuals into banking and make them part of monetary development.

Kendall et.al, (2010) detailed that in agricultural nations there is a gauge of 0.9 records per grown-up and 28% banked grown-ups. The European Commission Manuscript 2008 expressed that the trouble in getting to and utilizing monetary administrations prompts monetary rejection. They likewise expressed that there is some broad acknowledgment that monetary prohibition can be alluded as a feature of a lot more extensive social rejection looked by certain gatherings who need admittance to quality fundamental administrations, for example, occupations, lodging, schooling or medical services.

Save Bank of India (2010) in the report of fundamental factual returns of booked business banks of India expressed that number of credit accounts had expanded to 118.6 million and complete store records to '734.8 million in year 2010 for all banks. It was additionally analyzed that no-decoration accounts opened by open and private banks had expanded to 33 million of every 2009 from 7 million out of 2006.

Dhar (2010) determined that to improve monetary consideration, ideas like branchless banking ought to be advanced with the assistance of business journalists and business facilitator. These agents are nearby individuals who are approved by the banks to follow up for their sake. Business Facilitator helps the laymen locals in opening the financial balance, clarifying the standard of saving, credits and so on to clients, reimbursement of bank advance, seeing how to profit any remaining administrations of bank, while business reporters can do everything what BF can do and can deal with money exchanges for the bank. It was inferred that such plans will assist with decreasing monetary avoidance and will assist with spreading mindfulness among locals.

Swamy (2011) directed an investigation to gauge the inclusion, progress and patterns of monetary consideration in India. It was referenced in the investigation that 9% populace of USA didn't have a ledger.

Pinar et.al, (2011) in their paper named, "Admittance to Financial Services and the Financial Inclusion Agenda Around the World", broke down the admittance to store and advance administrations given by the banks far and wide. Study uncovered that to accomplish 100% monetary comprehensiveness a lot more activities ought to be taken. It was discovered that 56% of the grown-ups on the planet didn't approach formal monetary administrations.

Legislature of India (2011) in a report on temporary populace aggregates expressed that with the assistance of Kisan Credit Cards (KCC) conspire around 95 million ranchers were brought under the domain of banking framework in year 2010 as against 84.6 million ranchers in year 2009. Further it was referenced that under Self Help Group bank linkage program, 7 million rustic individuals gain admittance to formal investment funds and formal credit framework.

Swamy (2011) endeavored to comprehend and assess the inclusion, progress and patterns of monetary incorporation in India. Information gathered from different optional sources was dissected utilizing effectively reasonable diagrams and tables. It was inferred that India is the second biggest nation after China to have 34% populace occupied with formal financial framework and around 135 million families monetarily rejected from formal banking. It was expressed that about 40% ledger holders don't get to their financial balances once every month. It was proposed that the planned exertion banks, government and related foundations ought to be made to protect the poor from neediness and encourage them to get to financial balances.

Kuri and Laha (2011) put forth an attempt to quantify the interstate varieties in the admittance to back utilizing composite record of monetary incorporation. Study was led in the farming year (October, 2006 to June 2007) on the data got from both essential and auxiliary information. An example review of three locale of West Bengal, in particular Birbhum, Bankura and North 24-Pargana was led to quantify the degree of monetary incorporation. A complete proportion of monetary incorporation was utilized to quantify interstate variety in monetary consideration (Sarma, 2008). Investigation dependent on Binary Profit Regression technique uncovered that the more noteworthy level of consciousness of fundamental financial administrations, enhancement of country non-ranch area, proficiency drive to provincial families and an extension of family level resource were a portion of the essential components which helped in decreasing the obstructions during the time spent monetary consideration. It was additionally discovered that among all states, Chandigarh held the top position and Manipur had been positioned as the base most state with regards to monetary consideration. On other hand, West Bengal fell under the lower classification conditions of India.

Chattopadhyay (2011) estimated the degree of monetary incorporation in the nation when all is said in done and West Bengal specifically. Essential overview of 329 families was led in the three regions of West Bengal in particular East Midnapore, Birbhum and Murshidabad. To dissect the gathered information multidimensional methodology had been utilized to pass judgment on the few measurements (banking infiltration, accessibility of banking administrations and utilization of banking arrangement) of comprehensive monetary framework. Study uncovered that about

61.7% of the families had were having their ledgers with business banks and RRBs while rest 38% needed more cash to open a financial balance that still cash loan specialists were the predominant wellspring of provincial money despite the fact that there was wide presence of banks in country regions. With the assistance of Index of monetary incorporation (IFI) it was discovered that Maharashtra drove with the most elevated estimation of IFI followed by Karnataka. Though Kerala, Tamil Nadu, Andhra Pradesh, Punjab and Himachal Pradesh were in the gathering of medium IFI states with IFI esteems somewhere in the range of 0.3 and 0.5. Any remaining states had low IFI esteems, skimming somewhere in the range of 0.0 and 0.3. It was reasoned that Bank Correspondent (BC) model ought to be advanced as rustic individuals were reluctant to exploit banking offices. Further it was recommended that organized exertion of society, banks, recipients and controllers ought to be made to make monetary incorporation drive more compelling.

Bhanot (2012) directed an examination to quantify the degree of monetary incorporation in the eastern locale of India. IFI was resolved based on three measurements for example banking entrance, accessibility of heating administrations and utilization of banking framework. The IFI for India is as low as 0.2 (scope of estimations of IFI lie somewhere in the range of 0 and 1, 0 showing total monetary prohibition and 1 complete incorporation). Study uncovered that monetary consideration for Assam and Meghalaya was poor with very low IFI estimations of 0.13 and 0.21 individually.

Raman (2012) in his expressive and experimental examination surveyed the Indian experience and part of RBI in advancing monetary consideration. Auxiliary information gathered from different sources was utilized to dissect the part of RBI in advancing monetary incorporation. It was expressed that National Vision for 2020 is to open almost 600 million new client's record and administrations through various channels. With extraordinary reference to certain articles it was discovered that there are around 403 million versatile clients in India out of which 54% have ledger. Himachal Pradesh was the lone state to accomplish full monetary consideration (University Business School, Punjab University, 2010). It was inferred that monetary incorporation had assumed a significant job in heading out the neediness from the day

it was started and time isn't far when all Indians will have their ledger and all will be monetarily included.

Sharma and Tuli (2012) directed an enlightening report to analyze the presentation of Indian banks based on accomplished targets and genuine given targets. Study was led utilizing the auxiliary information to quantify the presentation of monetary incorporation designs up to November 30th 2011. Information gathered from the site of service of money and RBI was dissected utilizing graphical and rate technique. It was reasoned that being an agricultural country, RBI had assumed a gigantic part for the achievement of monetary incorporation plot.

Bagli and Dutta (2012) steered an investigation of 28 states in India to analyze the accomplishment of Indian States in monetary incorporation. Information distributed by RBI during year 2009-2010 and Government of India had been utilized for the examination. To examine chosen pointers different measurable procedures to be specific, Principal Component Analysis (PCA) and Composite Index of Financial Inclusion (CIFI) had been utilized. Further Pearson Correlation Coefficient of Human Development Index (HDI) was determined to analyze the level of relationship between monetary consideration and human advancement of the states. On breaking down it was uncovered that minimized gatherings of populace were avoided from formal monetary framework. Besides individuals didn't know about the financial administrations and on other hand banking authorities didn't know about the requirements of individuals. This hole had been the explanation in view of which banks couldn't bring all individuals under the umbrella of monetary incorporation. It was proposed that all the monetary organizations need to turn out to be socially dependable to accomplish total monetary consideration.

Khaki and Sangmi (2012) gained an endeavor to contemplate the ground of monetary incorporation in the territory of Jammu and Kashmir. Information for the current examination had been gathered from both essential and auxiliary sources. Essential information was gathered from the unstructured conversations with top and center level administration. Information gathered was examined and spoken to utilizing diagrams and graphs. It was inferred that banks of Jammu and Kashmir in relationship with government offices and RBI had gained a critical ground to accomplish the goal of comprehensive development. It was proposed that banks

should work so that needy individuals are not left in the grasp of casual wellsprings of money and to accomplish more prominent monetary consideration it was suggested that organized exertion ought to be completed from the two sides (supply side and request side) to eliminate the requirements in comprehensive development.

Batra (2013) led an exploratory examination to dissect the job that monetary consideration in engaging ladies. Study was led in three areas of Punjab to be specific Jalandhar, Patiala and Ferozpur. Optional information was assembled from 50 public area bank offices, though to gather essential information semi organized poll was coursed among helpfully chose 300 ladies respondents. Five point Likert scale, weighted normal scores, Chi square and rate strategy were utilized to examine the gathered information. The examination uncovered that in areas of Punjab microfinance administrations were offered to a great extent as banks had made enough arrangements for the equivalent. It was discovered that absence of mindfulness, bother, procedural conventions and troublesome reimbursement terms were sure territories where banks expected to work upon to receive the reward of this monetary incorporation step of the public authority.

Dixit and Ghosh (2013) made an endeavor to comprehend comprehensive development wonder, its need and monetary consideration as an instrument to accomplish it concerning its degree in Indian States. Information gathered through optional sources was dissected based on boundaries like Gross Domestic Product (GDP) per capita, proficiency rate, joblessness rate and file of monetary consideration (Johnson R.A. and Wichern D.W., 2000). Progressive bunching strategy was shown by Dendrogram thinking about normal linkage between the gatherings. On investigating it was discovered that Kerala, Maharashtra and Karnataka represented higher pace of monetary incorporation though the states like Gujarat, Manipur, Assam, Bihar, Uttar Pradesh and Madhya Pradesh stood ineffectively on the grounds of monetary consideration. It was reasoned that endeavors taken by local and state government were adequately not to experience the amazing issue of monetary avoidance. Further it was proposed that in a joint effort with sectoral controllers, banks, governments, common social orders and Non Government Organization (NGO) and so forth states need to build up their own tweaked answers for accomplishing comprehensive development.

Singla (2013) in an examination named, "Monetary Inclusion – Financial Services for Everyone", clarified the significance of monetary consideration, its benefits, challenges looked in method of comprehensive development and measures that should be taken for the accomplishment of monetary incorporation. It was uncovered that monetary consideration is a method for giving account to each part of the general public with diminished expense. To beat the different difficulties, for example, absence of monetary instruction, occasional pay of poor, actual distance of the bank offices and muddled method to profit monetary administrations, RBI had taken different estimates like opening of no ruffle accounts, utilization of territorial language, rearranging Know your Customer (KYC) standards and so forth It was reasoned that to beat the requirements in comprehensive development RBI needs to receive different procedures like transformation of cutting edge innovation, opening of country bank offices and saving plans for low pay gatherings.

Divya (2013) attempted to discover the effect of monetary incorporation on day by day breadwinners of Tenali town in Guntur area of Andhra Pradesh. Essential study of respondents was directed utilizing irregular inspecting strategy. Information was dissected utilizing rate strategy. It was presumed that there is more need to instruct and make some new instruments for day by day workers and make them part of monetary incorporation.

Sharma and Kukreja (2013) centered their investigation named, "An Analytical Study: Relevance if Financial Inclusion for Developing Nations" on the job of monetary incorporation in reinforcing India's situation according to other nations' economy. Study uncovered that even today almost 50% of the Indian populace doesn't approach formal monetary administrations they actually stay subject to cash moneylenders (K.C. Chakrabarty, RBI Deputy Governor). Further on examining the auxiliary information it was discovered that simply opening of no-ornamentation ledger won't settle the reason for monetary consideration. Or maybe formal monetary establishments should acquire the trust and generosity of the poor through creating solid linkages with local area based monetary endeavors and cooperatives.

Sahu (2013) tried to comprehend the current status of India's monetary incorporation to assess the monetary consideration record for different states and to contemplate the connection between monetary incorporation file and financial factors. Monetary

Inclusion Index had been made utilizing multidimensional way to deal with break down the information gathered from optional sources. It was discovered that 72.7 percent of India's 89.3 million rancher families were prohibited from formal wellsprings of money. Further the investigation uncovered that no state from India has a place with high IFI gathering. Just two states likely Chandigarh and Delhi have a place with medium IFI and all rest have a place with low IFI esteems. Relapse results indicated that 34% of the change in monetary incorporation record is clarified by per capita net homegrown item.

Chauhan (2013) put forth an attempt to examine the diagram of monetary consideration in India. A correlation was made among India and some other chosen nations with respect to number of branches, ATMs, bank credit and so on to distinguish India's position viewing monetary consideration when contrasted with other chose nations. Commitment of banks towards monetary consideration was concentrated with the assistance of a contextual analysis of Axis Bank. Study uncovered that regarding number of branches India is at seventh position when contrasted with France which holds first position. Though UK being at first position, India holds fifth and third position for bank credit and bank stores separately (World Bank, Financial Access Survey, 2010). Considering the part of Axis Bank in advancing monetary incorporation since year 2006, it has been said that financial area had assumed the significant job in this comprehensive drive. It was recommended that to bring individuals into formal financial framework government and RBI need to work in relationship with innovation accomplices and different organizations to build up the plans of action which center around open and reasonable items and cycles.

Bhattacharjee (2014) considered the idea of deprival from the different plans of monetary consideration on the recognized ghetto inhabitants in Assam. Information gathered from auxiliary sources was investigated utilizing rate technique. It was inferred that to bring ghetto inhabitants out of obligation and to bring them under formal monetary framework they ought to be made monetarily mindful. It was expressed that Government of India and RBI should approach to outline some successful arrangements and actualize them through proper administration so widespread financial administrations can be stretched out to the individuals who are monetarily barred.

Ashar (2014) introduced the discoveries on cooperation of public and private banks for making mindfulness and monetary proficiency among the clients of the banks. Essential review of 100 workers' from both private and public area banks was led and the equivalent was examined utilizing mean, middle, mode and rate as factual devices. Study uncovered that to authorize monetary consideration in the nation banks ought to expand monetary proficiency, revive rustic branches and investigate backing of cross breed channels like NGO's, Post Offices and Educational Institutes. It was additionally expressed that banks and neighborhood organization need to perform unmistakably, however commonly strengthening jobs in accomplishing social change through monetary incorporation.

Kaur and Tanghi (2014) directed an expressive report zeroed in on evaluating the degree of monetary consideration across some agricultural nations (India, China, Sri Lanka, South Africa, Russian Federation and Brazil) of the world. Information identified with investment funds, borrowings and some other monetary markers was gathered from different auxiliary sources and was introduced utilizing graphical portrayal. It was discovered that based on sexual orientation, Sri Lanka was on the top with 69.98% guys and 67.23% females having a record at monetary foundations; Whereas India was at the base with 43.73% guys and 26.49% females. Further, it was seen that in contrast with different nations India falls behind in the wide range of various factors to be specific investment funds at formal monetary organization, credits from formal monetary establishment and admittance to banking. It was presumed that to support monetary comprehensiveness it is essential to make mindfulness among individuals through mass correspondence and monetary education programs.

Kolloju (2014) in his examination on "Business Correspondent Model opposite Financial Inclusion in India: New Practice of Banking to the Poor", presented the idea of monetary consideration and how Business Correspondent model aided in advancing monetary incorporation. The auxiliary information gathered was spoken to with the assistance of diagrams and graphs. It was expressed that BC model ought to be founded on three basic viewpoints (admittance to banking markets, admittance to credit markets and monetary training) to address the issue of monetary incorporation in a comprehensive way (RBI audit report on BC model 2009:16). Further it was

closed BC model has extraordinary potential to bring the rustic unbanked populace inside the financial overlap. Yet, it is significant that banks and monetary organizations need to work in right energy.

Monetary Inclusion is needed for giving admittance to convenient and sufficient credit and monetary administrations to poor and low pay bunch individuals. According to the Human Development Report delivered in 2006, it was discovered that around 350-450 million individuals had been profited by monetary consideration development. In 2008, Rangarajan Committee decided saving, advances, protection, credit, installments and so forth as the variables influencing monetary comprehensiveness. The Reserve Bank of India in 2010 analyzed that no ruffle accounts in all open and private banks had expanded to 33 million out of 2009 from 7 million out of 2006. The self improvement gathering linkage program likewise assisted 7 million provincial individuals with gaining admittance to formal investment funds and formal credit framework. A portion of the scientists with the assistance of IFI verified that Maharashtra leads with the most elevated estimation of IFI followed by Karnataka, while Kerala, Tamil Nadu, Andhra Pradesh, Punjab and Himachal Pradesh were in the gathering of medium IFI states with IFI esteems somewhere in the range of 0.3 and 0.5. Any remaining states had a place with low IFI esteems. Be that as it may, there are no investigations for assessing the effort of monetary incorporation from its proper origin in 2005-06. The current examination means to study and analyze the monetary comprehensiveness of public and private area banks dependent on the optional information from 2005-06 to 2014-The investigation centers around the effort and genuine use of ATMs and check cards gave under the monetary incorporation activity by open and private area banks.

2.3 CUSTOMER SATISFACTION WITH REGARD TO BANKING SERVICES

Consumer loyalty is one of the significant determinants of execution and proficiency of a bank. Productivity of the bank relies on the nature of administrations it can convey to its clients. Consistent improvement in the nature of administrations is likewise needed to make due in the serious climate. Henceforth, a broad survey of the investigations was directed on consumer loyalty concerning banking administrations and the discoveries have been recorded underneath:

Parasuraman et.al, (1985) made an exploratory examination to build up a model on assistance quality. Study uncovered 10 measurements that buyers use in framing assumptions regarding and impression of administrations. These 10 measurements were access, correspondence, fitness, kindness, believability, dependability, responsiveness, security, physical assets and comprehension. The examination likewise pinpointed four key inconsistencies on specialist co-ops' side which influences administration quality as seen by clients. Study recommended a reasonable help quality model which can additionally be utilized in exact exploration on assistance quality.

Moutinho and Douglas (1989) investigated the nature and bearing of the fulfillments that are conveyed to purchasers of bank benefits and featured the standards used to assess these administrations. The non-metric multidimensional scaling strategy was utilized to quantify the view of respondents towards the administrations advertised. Study uncovered that respondents had elevated levels of fulfillment with respect to the area, openness of branches and ATMs, and acknowledgment of the current degrees of banking expenses; yet communicated some worry in their assessment of better than ever benefits.

Unforgiving (1993) considered ideal parts of innovation and recognized five significant advantages of innovation to an administration association. Right off the bat, work ought to be supplanted with types of gear. This replacement will assist with expanding the operational viability. Besides, acquaintance of innovation may assist with accomplish normalization in the nature of administration. Thirdly, higher assistance levels could be accomplished by such mixing of innovation. Fourthly, administration associations can keep up close connections with their clients by attaching in the PC organizations. Such innovations approve one firm to associate itself with the data arrangement of the other and in this way, be in touch. At long last, innovation might be useful in coordinating workers' conduct and upgrading status and inspiration.

Aurora and Malhotra (1997) in their investigation named, "Consumer loyalty: A Comparative Analysis of Public and Private Sector Banks" dissected the degree of consumer loyalty and some showcasing methodologies in both private and public area banks in India. On examining the boundaries of fulfillment it was discovered that

normal tasks, cost, situational, climate, innovation and intelligent were the six elements of consumer loyalty among public area banks. Be that as it may, in private area banks scientist discovered seven variables of fulfillment out of which staff factor was positioned first and situational factor was the most reduced positioned among each of the seven. Rather than value factor, limited time factor was investigated by specialists in private area banks. Further it was presumed that public area banks ought to create systems for legitimate preparing and advancement of bank staff, standard market reviews, planning modified administrations, keeping away from long lines in bank and keeping up alluring stylistic layout. Really at that time public area banks will have the option to rival private area banks.

Kangis and Voukelatos (1997) led an examination to quantify the insights and assumptions for clients towards administration quality offered by open and private area banks in Greece. The investigation uncovered that administrations offered by private area banks impacted genuine impression of value got than that of public area banks. It was recommended that to accomplish more elevated level of consumer loyalty, banks ought to painstakingly take a gander at each component of client discernment.

Sobti (1997) led a study of public and private area banks to gauge the client's discernment towards banks in India. It was found that public area banks were predominant in the parts of client steadfastness, picture and client direction, while new private area banks acquired preferred rankings for client direction over their general position dependent on different arrangement of perspectives.

Salma (1998) considered mechanical changes in the financial area. The accentuation on innovation as the critical factor for improving execution and expanding efficiency in banks had been all around exhibited through outlines. It was discovered that the vast majority of the Indian banks, to a great extent private ones, were accelerating to interface their cross country branches.

Ramayah and Ling (2002) directed an investigation on web banking in Malaysia. During the examination it was inspected that principle driving variable for the acknowledgment of web banking was the inclusion of web availability in Malaysia. It was discovered that over 90% of the respondents approached internet providers due to

which banks had been effective in advancing and making mindfulness about their items and administrations which were offered through Internet organization. It was likewise uncovered that clients of web banking office were a lot of worried about security of records, anyway it was discovered that Internet banking had a great deal of potential in the Malaysian banks if the worry of the clients could be tended to.

Arora (2005) dissected components affecting consumer loyalty in open area, private area and unfamiliar banks in northern India. The essential investigation of 300 clients was directed utilizing surveys which uncovered that huge contrasts (with respect to routine activity and situational and intelligent components) exist in consumer loyalty level of each gathering of banks. Unfamiliar banks were discovered to be the pioneers in motorization and computerization.

Debashish and Mishra (2005) estimated consumer loyalty in branch administrations given by open area banks in northern India. Around 1200 clients were studied and it was discovered that computerization, exactness in exchanges, mentality of staff and accessibility of staff generally affected consumer loyalty. Least significant factor was advancement of the items and different plans.

Raul and Ahmed (2005) explored client care in open area banks in 3 locales in Assam and it was discovered that clients were baffled with the administration, innovation and intelligent factors alongside high help charges. There was a wide hole in delivering administrations in metropolitan and rustic zones.

Beasty (2005) in an article named, "Private Banks Rate High in Customer Satisfaction", examined about the fulfillment level of clients among public and private area banks. The investigation uncovered that public area banks scored well among clients however on in general examination it was discovered that individuals were more happy with the trustworthiness level of private area banks and in future need to proceed with the home loan administrations offered by private area banks.

Sharma and Sharma (2006) broke down client savor the experience of metropolitan buyer banking. The investigation uncovered that clients were happy with credit offices, bank climate, routine work techniques, area, financing costs and so forth and were disappointed with advance customs and advancement through media. It was

likewise inspected that endurance and development of the bank doesn't rely just upon its size of assets yet additionally on its capacity to offer subjective types of assistance to its clients consistently.

Kunjukunju (2006) led an investigation to discover consciousness of client on new financial administrations and explanations behind the low degree of mindfulness. It was reasoned that enormous quantities of clients of public area banks were unacquainted about the new item and administrations given by their banks, while on other hand huge arrangement of clients from private area banks were having a thought of administrations being given by their bank. Study uncovered that significant purpose behind the absence of mindfulness was restricted individual contact with clients and it was recommended to lead the client gatherings or client relationship programs for better communication with the clients and to teach and edify them about the new items and administrations of the banks.

Sharma et.al, (2007) contrasted public and private banks and regard to view of clients with respect to support quality. Essential review of 500 clients (400 from SBI and 100 from HDFC) was directed utilizing the organized survey. Rate technique and weighted normal scores were utilized for the information examination. It was discovered that administration quality is related with client support and there was critical contrast in the nature of administrations given by banks. Banks in more modest urban areas were a long ways behind their partners in large and metropolitan urban areas.

Mishra and Jain (2007) led an investigation of nationalized and private area banks to know the constituent components of consumer loyalty. Two phase factor examinations strategy was utilized to show up at the elements of consumer loyalty. On dissecting it was discovered that watchfulness, ability, headway in administrations, dependability, vision, responsiveness, reach, cost viability and proficient cycle were the constituent components of consumer loyalty for nationalized banks, though administration quality, dependability, fitness, effective cycle, customization, ATM office, vision, carefulness, effortlessness of framework and brand picture were the fundamental variables for private area banks.Second request factor investigation came about into 5 measurements for both nationalized (administration direction, determination, adherence, esteem for cash and agreeability)

and private banks (Commitment, administration direction, esteem for cash, steadfastness and constancy). It was presumed that the best methodology for client maintenance is to convey a significant level of consumer loyalty which will result into solid client reliability.

Hold Bank of India (2008) detailed an examination led by Department of Statistics and Information Management, Chennai Regional Office, Local Board (Southern Region) to assess the fulfillment level of 2800 clients from 149 bank offices utilizing efficient inspecting technique. To quantify the consumer loyalty level variables like staff mentality towards clients, infrastructural offices, grievance dealing with and redressal instrument, financing costs and charges, advances and Visa offices were considered. On breaking down it was inspected that private area banks were superior to public area banks and unfamiliar banks in grumbling taking care of and redressal system, brisk and quick administrations and advance offices. On other hand greater part of the respondents were profoundly disappointed with the infrastructural offices, pace of revenue on Visas, administration charges and expenses exacted by the banks, particularly private area banks.

Hugar and Vaz (2008) assessed the client direction in open area banks for which 5 public area, 3 new private area and 3 unfamiliar banks were chosen. The examination reasoned that new private area banks had more ATMs toward the finish of March 2006 followed by SBI bunch where 77.5% branches were completely electronic and 18.2% were halfway automated. Business per worker and benefits per representative were higher in unfamiliar banks. It was likewise discovered that SBI had gotten more number of grievances followed by ICICI. The investigation likewise recommended receiving Customer Relationship Management (CRM) by open area banks to remain steadfast in serious climate.

Dhade and Mittal (2008) in their examination named, "Inclinations, Satisfaction Level and Chances of Shifting: A Study of the Customers of Public Sector and New Private Sector Banks", studied the clients of the Public Sector Bank for example State Bank of India and private area banks for example HDFC, ICICI, IDBI and Axis Bank to pass judgment fair and square of consumer loyalty among these banks. The examination uncovered that clients of private area banks were more fulfilled than the clients of public area bank for example State Bank of India. Further in the

investigation, it was reasoned that clients of private area banks were not happy with the area of bank to neighbourhood and postponement in the preparing time, though clients of public area banks (SBI) were more delicate towards the handling time considered taking care of and mechanical updates.

Taxak and Kaur (2009) in "A Study of Customer fulfillment in Private and Public Sector banks", dissected and analyzed the consumer loyalty level out in the open and private area banks. During the examination it was discovered that clients of private area banks were more happy with counter administrations like money stores, money installments, and issue of draft, check installment and check store offices offered by the bank. Then again when contrasted with private area banks, clients of public area banks were more happy with standard financial administrations, for example, ATM, request draft and check book office. From the investigation it was presumed that public area banks offer better types of assistance to their clients than private area banks.

Mengi (2009) directed an exact investigation to assess and contrast the administration quality offered with the clients by open and private area banks of Jammu. SERVQUAL (administration quality) scale was utilized to decide various elements of administration quality and chi-square test was performed to comprehend the effect of SERVPERF (administration execution) measurements (substance, dependability, responsiveness, confirmation and compassion) on consumer loyalty. Study uncovered that the clients of public area banks were more happy with the administration quality offered when contrasted with those of private area banks.

Padhy and Swar (2009) in their paper researched job of innovation in banking and its effect on apparent help quality in broad daylight, private and unfamiliar banks in Orissa utilizing an example size of 300 clients. CITI bank from unfamiliar banks, SBI and PNB from public area and ICICI and AXIS bank from private area were chosen for the overview. It was discovered that innovative elements (center help and systematization of administration conveyance) seem to offer more in separating the three financial areas while the individuals situated factor (human component of administration conveyance) seems to offer less to the segregation. Also, unfamiliar banks were discovered to be extremely near assumptions for clients followed by ICICI and AXIS. Administration quality in open area banks was set up to be low. It

was recommended that banks should invest true amounts of energy to coordinate the normal help quality with the offered administration quality so responsibility and faithfulness of clients can be accomplished.

Kumar and Rajesh (2009) in their investigation named, "Regardless of whether Today's Customers are Satisfied? – A Study with Banks", assessed and thought about the degree of fulfillment based on nature of administration given by the banks. It was discovered that there is no critical contrast between by and large client fulfillments in the banks. Further it was proposed that to build the degree of fulfillment banks should focus on usage of center financial arrangements and improvement of techno clever items. Banks likewise need to decide the best an ideal opportunity to offer the most applicable items.

Mittal and Jain (2010) featured the consumer loyalty levels among youthful clients in financial industry. An overview shows the holes between client's assumptions and discernment regarding IT based financial administrations. It was discovered that female clients were happy with the administration given where in there was contrast in male clients assumption and insight. Discoveries showed that simply by giving innovation based administrations banks can't achieve fulfillment of clients. Banks ought to plainly know the assumption for clients and ought to give such innovation which would coordinate their need and assumption. This will assist keepmoney with improving the IT based administrations for upgrading consumer loyalty.

Asgarian (2010) dissected the consumer loyalty level of Public and Private area banks in Iran. Study of 220 clients was directed utilizing SERVQUAL poll to test the customer's assumptions and discernments in bank's effects, dependability, responsiveness, affirmation and sympathy. The discoveries of the study uncovered that private banks were more fruitful in accomplishing higher consumer loyalty level when contrasted with public banks.

Khatri and Ahuja (2010) in "A Comparative Study of Customer Satisfaction in Indian Public Sector and Private Sector Banks", analyzed the consumer loyalty level of public and private area banks utilizing SERVQUAL technique. Study depended on five key measurements for example physical assets, dependability, responsiveness, affirmation and compassion. An organized poll was utilized to gather the essential

information of 122 respondents from Delhi and North Capital Region (NCR) utilizing critical testing strategy. The investigation of the data was done in SPSS utilizing measurable apparatuses like mean, standard deviation and T-test. The investigation uncovered that private banks had been fruitful in holding their clients by offering superb types of assistance than public area banks. Private banks expected to focus more on their credit offices and protection administrations since clients don't have an awesome assessment on these offices being advertised. While public banks appreciate the trust of clients which they use to remain in the race, anyway they need to improve their administration quality by improving their actual office, foundation and giving legitimate delicate expertise trainings to their workers. It was likewise expressed that as innovation had been received by all the banks, consequently it is not any more a factor of separation, rather banks should focus more on human factor as it will help in client procurement and client maintenance.

Singh and Arora (2011) led the Comparative Study on Banking Services and Customer Satisfaction in Public, Private and Foreign Banks of Delhi. Utilizing multistage testing strategy 6 banks (State Bank of India, Punjab National Bank and Canara Bank from Public area; ICICI Bank and Centurion Bank of Punjab from Private Sector and Standard Chartered from Foreign Banks) were chosen for the examination. Essential review of haphazardly chose 60 respondents was led utilizing organized poll. It was found that the clients of public banks were very little happy with the conduct of worker and foundation offices given by banks, while clients of private and unfamiliar banks were very little happy with charges, congeniality and correspondence. They have likewise recommended that nationalized banks ought to confer preparing on pressure the executives and public managing to their workers and ought to improve their foundation and vibe to rival private and unfamiliar banks in India.

Patra (2011) led the examination on assistance nature of private banks utilizing SERVQUAL as an evaluation apparatus to gauge the hole between client's discernment and assumption. Information of 400 clients was gathered from four distinct areas of India. Measurable apparatuses like weighted normal strategy and t-test were utilized to examine the gathered information. Study was directed dependent on five elements of administration quality to be specific, responsiveness,

dependability, affirmation, compassion and substance. It was uncovered that weighted normal hole score on assembling every one of the five measurements was 0.21422 and weighted normal hole score for substantial quality, dependability, responsiveness, affirmation and compassion was 0.17268, 0.24615, 0.17715, 0.1868 and 0.28452 individually.

Uppal (2011) analyzed client's delightedness from various financial administrations. An example size of 384 clients of Public, Private and Foreign Banks of District Ludhiana was contemplated utilizing an all around organized poll and the equivalent was examined with the assistance of rate and positioning strategies. Utilizing these measurable instruments it was presumed that clients of private and unfamiliar area banks were more pleased than the client's public area banks. Sex astute females and occupation shrewd agriculturist were discovered to be more fulfilled. Further it was uncovered that clients are leaning toward e-banks as opposed to conventional banks. Subsequently a few procedures are important to upgrade quality assistance in open area banks.

Kumbhar (2011) made an endeavor to analyze the client's discernment towards web banking administrations given by open and private banks. A very much organized poll was utilized to gather information from 190 clients of public area banks (SBI, Bank of Baroda, Corporation Bank, IDBI Bank) and private area banks (Axis Bank and HDFC Bank) in Satara city of Maharashtra. Separated critical inspecting strategy was embraced to gather the information. Measurable apparatuses like Kruskal-Walls Chi Square Tests, Spearman's rho non-parametric relationship and Mann Whitney U test were performed by the need of the examination. Examination shows that profoundly instructed class, representatives and finance managers regularly use web banking administration. Study additionally uncovers that there is huge distinction in the client's insight and web banking administrations given by the general population and private area banks. It was proposed that public banks improve their web banking administrations as per the assumptions for their clients.

Mishra et.al, (2011) led the examination to look at and break down the client relationship the executives out in the open and private banks of Orissa. Information of 337 bank clients (242 from public banks and 95 from private banks) and 157 brokers (heads, officials and staff of both public and private banks) was gathered for the

examination through organized poll. Measurable devices like cross tables, rate technique, chi-square and t-test were applied for breaking down the gathered information. After the total investigation it was discovered that private area banks were very much situated with great framework offices yet open area banks were falling behind in such offices. Through the examination it was recommended that public area banks ought to contribute and focus more on staff advancement and ought to make adaptable arrangements to diminish disappointment level among their clients.

Singh and Kaur (2011) in their paper named, "Consumer loyalty and general banks: An exact examination", decided the variables which sway consumer loyalty level in banks. With the assistance of organized poll essential review of 456 respondents was directed in the banks of Punjab and Chandigarh. The paper discovered that consumer loyalty is impacted by seven variables for example representative responsiveness, appearance of physical assets, social duty, administrations advancement, positive informal, fitness and dependability. Subsequent to applying numerous relapse procedure on the chose information it was discovered that social duty, positive verbal exchange and dependability were measurably critical at 5% degree of centrality and affected by and large fulfillment of the client.

Rao and Lakew (2011) in their investigation on "Administration Quality Perceptions of Customers: A Study of the Customers' of Public Sector and Private Sector Commercial Banks in India", analyzed the administration quality impression of clients of public and private area banks in the city of Visakhapatnam. All out 300 respondents were studied utilizing the generally acknowledged SERVQUAL model in which 42 quality estimating boundaries were utilized under the five elements of administration quality for example effects, dependability, affirmation, responsiveness and sympathy. It was presumed that out of all factors dependability and confirmation were evaluated most elevated while the effects measurement got the least score. In addition, the examination uncovered that there was a solid disparity in assistance quality discernments between clients of private area and public area banks.

Dharmalingam and Kannan (2011) did an experimental examination to assess the administration nature of new private area banks in Tamil Nadu. Information was gathered from 240 respondents from three private area banks for example ICICI Bank, AXIS Bank and HDFC Bank.On dissecting it was judged that from all chose

factors of client discernment, physical assets were appraised most elevated and item assortment territory was evaluated least among all.

Bilamge (2011) in "A Comparative Study of Customer Perception Towards Services Rendered by Public Sector and Private Sector Banks", assessed and looked at the consumer loyalty level in ICICI bank and State Bank of India. The aftereffects of the investigation uncovered that conduct of the ICICI Bank staff was more amiable than that of State Bank of India. When contrasted with SBI, token framework and maintaining of ATMs in ICICI Bank was exceptionally loved by all the clients. It was presumed that crucial administrations were deficient in both the banks.

Tiwary (2011) led the relative investigation to pass judgment on the purchaser discernment and level of consumer loyalty openly and private area banks of Chennai City. The example of the examination comprised of three private area banks (ICICI Bank, HDFC Bank and Axis Bank) and three public area banks (State Bank of India, Indian Bank and Canara Bank). Information was gathered from 250 respondents and was investigated utilizing the factor examination strategy. The aftereffects of the examination uncovered that on thinking about the score of 4 or more as high fulfillment, it was presumed that none of the clients of public area banks communicated high fulfillment, though thinking about the score of 3 or more as moderate fulfillment, four boundaries for example Time taken for opening a record, Time taken for withdrawal, Time taken for store of cash, and Service charges communicated moderate fulfillment.

Virk and Mahal (2012) broke down the consumer loyalty level of Public and Private Sector Banks by directing a relative report in Chandigarh City. The example of 160 clients who were chosen from both public area (State Bank of India, Punjab National Bank, Oriental Bank of Commerce) and private area banks (ICICI Bank, HDFC Bank, and Axis Bank) utilizing helpful inspecting technique. Autonomous example T-Test was led at 5% and 1% degree of huge to look at if the contrasts between all factors were critical. Information gathered was dissected and thought about utilizing Independent example T test. The examination uncovered that branch offices were decidedly associated with teller administrations, relationship with supervisors, shared asset administrations and phone enquiry which add to a huge degree towards consumer loyalty. Further it was reasoned that private area banks accentuate more

after building their customers and are better furnished with current framework when contrasted with public area banks.

Kumar and Prajakta (2012) analyzed the administration nature of public and private banks in Northern Gujarat district by leading an overview of 300 clients chose from both public and private area banks. Autonomous T-Test was done to look at assumptions for both the gathering of clients. Numerous relapses method was applied to comprehend the commitments of autonomous factors like Age, Gender, Occupations, Annual Income and Education in clarifying assumptions and impression of clients. It was inferred that assumption, occupation and instruction were discovered to be the most informative factors among all and on other hand assumptions were discovered to be profoundly reliant on occupation and training.

Subhash et.al, (2012) in their investigation examined the fulfillment level of clients in broad daylight and private area banks. Essential overview of 200 clients was led in Panipat City. 4 banks in particular State Bank of India and Punjab National Bank from public area and HDFC and ICICI Bank from private area were chosen for the examination. To quantify the fulfillment level analyst inspected different factors, for example, accessibility of client care administrations, premium on stores/credits, operational execution and unwavering quality of ATM's, banks recuperation strategy and question taking care of instrument. Measurable apparatuses, for example, rate strategy and chi square test were applied to examine the degree of fulfillment. Study uncovered that clients of private area banks were more happy with the client care administrations though different boundaries of fulfillment were representing a test to the public area banks. Consequences of various boundaries used to pass judgment fair and square of fulfillment had indicated following outcomes:

1. **Availability of Customer Care Services:** Results uncovered that most extreme 44% respondents were firmly happy with the client care administrations given by ICICI bank followed by 40% respondents from HDFC bank. Though just 18% respondents from SBI and PNB were discovered disappointed from the client care administrations.

2. **Interest on Fixed Deposits Accounts:** According to the analyst fulfillment in regards to revenue on store accounts given by banks shows

that most elevated 60% respondents were unequivocally happy with the pace of revenue given by ICICI bank followed by the half respondents of SBI bank. While 60% respondents were discovered happy with PNB and 8% respondents from HDFC bank were discovered to be emphatically disappointed.

3. **Interest Rate on Loan/Credit:**According to the investigations results portrayed that most elevated 44% respondents were emphatically happy with ICICI bank followed by SBI bank and 68% respondents were discovered happy with premium charged on layaway by PNB. It was additionally uncovered that ICICI and SBI were discovered to be happy with the pace of interest on store accounts just as advances/credit.

4. **Operational Performance and Reliability of ATMs:** It was discovered that most extreme 70% respondents were unequivocally happy with the exhibition and dependability of ATMs given by SBI bank followed by HDFC keep money with 42% while just 36% were fulfilled by ATM administrations given by ICICI bank and on other hand 36% demonstrated their disappointment for PNB. In entirety SBI bank being the biggest public area bank had been discovered powerful regarding operational execution and unwavering quality of ATMs.

5. **Bank Recovery Method:** Findings uncovered that greatest 32% respondents were firmly happy with recuperation technique for PNB though 56% indicated their fulfillment towards SBI. Just 10% were disappointed with the recuperation technique embraced by SBI and ICICI bank. Further the investigations indicated that private banks lead in giving better offices and yet their recuperation technique is additionally rigid.

6. **Query Handling System:**According to the investigation fulfillment level towards question taking care of framework uncovered that 24% respondents are unequivocally happy with inquiry taking care of arrangement of HDFC bank followed by ICICI bank. Further it was considered that 28% respondents are happy with PNB and most elevated

42% respondents of ICICI bank are discovered disappointed with the question taking care of framework.

Malik (2012) in her examination made an endeavor to quantify the mindfulness level of the clients and to investigate the assumptions for the clients from their banks. An all around organized survey was utilized to gather the perspectives on 400 clients of SBI and HDFC Bank across India. Different factual apparatuses, for example, SERVQUAL, factor examination and weighted normal strategy were utilized to investigate the information. Study uncovered that when contrasted with public area banks, clients of private area banks were more mindful about the telephone banking and portable financial administrations. It was reasoned that public area banks need to invest an energy toward issues identified with staff, up-degree of innovation and general climate of the bank and so forth which will assist PSUs with expanding the fulfillment level among the clients.

Lohani and Bhatia (2012) in their examination named, "Evaluation of Service Quality in Public and Private Sector Banks of India with Special Reference to Lucknow City", looks at the clients' impression of administration quality. Information was gathered from 410 clients of public banks for example SBI, PNB and Bank of Baroda (BOB) and private banks for example HDFC, ICICI and AXIS utilizing poll dependent on SERVQUAL model. On examination of the two banks it was uncovered that private bank clients were more dedicated and fulfilled as they improve nature of administration. Study infers that both public and private area banks should deal with three generally crucial and vital determinants (dependability, responsiveness and affirmation) to cultivate client please.

Gupta et.al, (2013) analyzed the clients' impression of administration nature of public and private banks of Delhi and NCR utilizing SERVQUAL technique. The poll comprising of 22 proclamations in 5 key measurements to be specific physical assets, dependability, responsiveness, confirmation and compassion was circled among 200 respondents utilizing straightforward arbitrary testing method. The analyst utilized the rate technique to break down the information. Study uncovered that private banks have fulfilled their clients with great administrations and they had effectively actualized unmistakable components like present day supplies, infrastructural offices, nature of materials utilized and so on Further it was investigated that the majority of

73

the respondents felt that the workers of private banks were extremely quick to fulfill their clients while on other hand clients of nationalized banks felt that the representatives were least worried about their clients.

Gill and Arora (2013) led a similar investigation of level of consumer loyalty towards administrations given by open and private area banks. Two public area banks chose for the examination included Punjab and Sind Bank and Union Bank of India and the private banks incorporate HDFC bank and IDBI bank. Essential study of 200 clients was led utilizing helpful testing technique in three significant urban communities of Punjab to be specific Amritsar, Jalandhar and Ludhiana. On the utilization of Z-Statistics it was uncovered that there are critical contrasts in the factors affecting the choice of clients with respect to administrations profited from public banks versus private banks. It was uncovered that private banks need to chip away at acquiring confidence of clients as clients actually don't feel made sure about while managing terms and conditions given by private banks though open banks appreciate the various leveled trust as they are more established in Indian monetary framework. Further examination uncovered that public banks need to work more on innovation and in general stylistic theme to get by on the lookout.

Anita and Singh (2013) did an investigation to break down the consumer loyalty level in Retail Banking. The examination was directed in Kurukshetra City on the clients of State Bank of India, Punjab National Bank, HDFC Bank, ICICI Bank, IDBI Bank and on some other private and nationalized banks. An example size of 300 clients was chosen utilizing Random Sampling Technique. It was presumed that most of clients want to have accounts with both private and public area banks. It was likewise discovered that pay was not a vital determinant for picking specific sort of bank. Further examination uncovered that there was no single help in regard of which genuine fulfillment is near the assumptions and the division hole exists across administrations, while versatile banking, net banking and telephone banking administrations should be advocated. Also administration conveyance and question taking care of time should be diminished.

Salma and Shahneaz (2013) did a near report to pass judgment on the consumer loyalty level of public and private area banks in 5 urban areas of Bangladesh (Dhaka, Rajshahi, Khulna, Sylhet and Barishal). An example of 500 clients was chosen

utilizing helpful inspecting strategy to pass judgment on the fulfillment level of clients under different boundaries, for example, costs, dependability, innovation, client care, area and framework and so on The Statistical tests were directed at 5% and at 1% of critical. It was inferred that private area banks were more favored by lion's share of the client as they underline more upon relationship working with their customers and are better furnished with current framework when contrasted with public area banks.

Maurya and Bhat (2013) in an examination named "Comparable Analysis of Private and Public Sector Banks in Punjab" Level of satisfaction was inspected using coordinated review which was scattered among 50 customers of Public and Private zone banks in Punjab. Rate examination was used for analyzing the data and to appear at huge derivations. It was found that prevailing piece of the customers rate the idea of organizations (76%), Convenience (48%), speed of return (68%), customer relationship (54%), the threat being referred to (36%), Internet banking (4%) and adaptable banking (8%) as crucial guidelines for picking a bank. Further in the assessment expert had given some recommendation to improve the organization idea of banks:

1. Public banks should take less time in approving the development.

2. Public region banks should develop a methodology to improve customer associations.

3. Private Banks need to present even more new ATMs at different zones.

4. As the web banking organization given by open banks was not up to stamp, it was recommended that identical ought to be improved.

Rao (2013) in "An Empirical Study of Customer's Satisfaction in ATM Services" led the overview on consumer loyalty utilizing organized survey dependent on SERVQUAL measurements. Essential information was gathered from the 120 clients of Andhra Bank and ICICI Bank of Vijayawada city. Rate strategy was applied as measurable device for breaking down the information. It was discovered that 68.3% respondents of Andhra bank according to 61.6% respondents of ICICI bank expressed that they can undoubtedly find the ATM in their city. Though 65% respondents from ICICI and 53.4% from Andhra bank answered that they couldn't discover ATMs of

their bank at all valuable spots like Malls, Hospitals and Stations and so on Finally it was presumed that respondents of Vijayawada city are happy with the ATM administrations of both public and private area banks.

Garg et.al, (2013) in their investigation on consumer loyalty with administration quality in Public and Private area banks attempted to break down the connection between administration quality and consumer loyalty. Under open area banks Punjab National Bank and Oriental Bank of Commerce were chosen though ICICI and HDFC were chosen among private area banks. The investigation depended on the essential study which was led in Ambala city. An organized survey was utilized to gather the information from 160 clients utilizing helpful testing strategy. Measurable instruments, for example, rate strategy, chi square test and Cranach's alpha test were utilized to investigate the information. Study uncovered that private area banks were more favored by dominant part of the client as they underline more upon relationship working with the customers and are better outfitted with present day foundation when contrasted with public area banks. It was discovered that private area banks had the option to hold their clients by offering quality types of assistance in contrast with public area banks.

Kaura (2013) directed the cross sectional exploration on 445 metropolitan bank clients of Rajasthan to inspect the impact of administration quality, seen cost and decency and administration accommodation on consumer loyalty. Relapse investigation was utilized to assess the gathered information. The specialist perceived representative conduct, substance and data innovation as administration quality measurements while access accommodation, exchange comfort, choice accommodation and advantage accommodation were the measurements for administration comfort. It was discovered that in open area banks aside from substance and advantage accommodation any remaining measurements positively affected consumer loyalty. Huge contrast in beta coefficient was found among public and private area banks with respect to worker conduct, choice comfort, access accommodation and post-benefit comfort.

Gupta and Agarwal (2013) did an elucidating and cross sectional examination to inspect the consumer loyalty among the clients of Punjab National Bank and HDFC Bank situated in the Meerut Region of Uttar Pradesh. The administration quality

model (SERVQUAL) created by Zeithamal, Parasuraman and Berry in year 1988 was utilized to build up the all around organized poll for the overview. Information of 100 bank respondents from each bank was gathered and on breaking down a similar utilizing weighted normal mean it was discovered that most noteworthy consumer loyalty be exhibited in the responsiveness territory, for example, ability to help client, neighborly mentality of staff, trailed by the unwavering quality zone, for example, client direction, client service and on other hand, the moderate fulfillments were in the effects region, for example, framework offices, stylistic layout, trailed by compassion region, for example, banks business timing and degree of profitability. The investigation gave rules to the supervisors of the banks to defeat shortcomings and to get more fulfilled reactions in future.

Anita (2014) in her examination article introduced the consumer loyalty level among public and private area banks to get a 10,000 foot perspective on consumer loyalty works on being embraced by chosen banks. Under open area banks State Bank of India, Punjab National Bank and Central Bank of India were chosen and ICICI, HDFC and Axis Bank were chosen among private area banks. Test of 400 clients was chosen from Kurukshetra city utilizing advantageous inspecting strategy. Factual methods, for example, mean, standard deviation, coefficient of variety, Cronbach's Alpha test were utilized to examine the information. In the wake of dissecting the information results uncovered that there was a huge connection between all the factors and the responsibility for. It was likewise investigated that clients were more happy with the private area banks than public area banks and consumer loyalty is to a great extent subordinate upon items accessibility in the banks instead of areas of the bank. Further, the investigation uncovered that as per speculation H0 there is no distinction in fulfillment level of clients openly and private banks however discoveries of the examination indicated that private area banks had been offering additional types of assistance like home office, 24*7 hours office, question goal through phone, costs of the administrations or more all accessibility of the different items.

Verma (2014) featured the degree of fulfillment of clients with respect to ATM administrations given by Union Bank of India and Yes Bank. Utilizing advantageous examining strategy Primary information was gathered from 40 clients. Measurable instruments and strategies like unmistakable measurements, rate strategy and raking

technique were utilized to examine the information. Consequences of the investigation uncovered most of the clients from both the banks were disappointed from the ATM complaint settlement, area, number of ATMs, nature of notes and accessibility of grievance book at ATM counter. Further, it was recommended that bank ought to essentially chip away at setting up a component to tackle complaints identified with ATMs as it will help in expanding the degree of consumer loyalty.

Goel and Kumari (2014) in a distinct report named "Consumer loyalty and Customer Retention in Private Banking Sector: The Case of HDFC Bank, Chandigarh (Panchkulla and Mohali)" directed a review on consumer loyalty utilizing the comfort testing strategy. The information of 120 respondents was gathered through a very much organized poll containing factors, for example, costs, dependability, innovation, client care, area and foundation and staff disposition towards critical thinking of clients. Factual strategies like rate technique, standard deviation and mean were utilized to examine the information. Study uncovered that consumer loyalty shifted by the idea of the administrations. Most noteworthy consumer loyalty (Mean 3.0-3.99) was appeared in regions like help unwavering quality, security of their investment funds, framework; and staff demeanor toward critical thinking of clients. The majority of the clients were happy with the bank due to various branches at helpful areas, innovation offered by bank in type of store machines and service bill tolerating machines and so on Further it was uncovered that clients were disappointed (Mean 2.73-2.99) with complaint taking care of while a portion of the respondents demonstrated an apathetic mentality (Mean 3.13-3.63) which places maintenance and devotion towards the bank being referred to.

The examinations referenced above calls attention to the variables which influence the administration quality as seen by clients. Studies additionally demonstrate the holes between client's assumptions and insight regarding banking administrations. Be that as it may, the confirmations of relationship between financial factors and consumer loyalty as for the administration given by open and private area banks are restricted. Consequently, the investigation was attempted to get a more extensive view on the variety in the discernment and level of fulfillment of clients across financial factors. It very well may be additionally closed from the above examinations that there are different boundaries or measurements of consumer loyalty viz. availability, value,

viability, substance, unwavering quality, affirmation, responsiveness and so on Keeping in view the broad audit of writing, consumer loyalty towards the administration of public and private area banks in this investigation has been concentrated through six boundaries viz. viability, openness, substantial quality, value, dependability and sympathy.

2.4 SIGNIFICANCE OF THE STUDY

Indian banking during pre-autonomy period was limited to profit just couple of families who were administering all the exercises of banking yet after freedom in 1947, Government of India assumed responsibility for the whole financial framework and had given the idea of social banking. Keeping in view social financial Indian Government had made two significant strides; nationalization of Indian banks in the year 1969 and 1981. These nationalized banks had contributed a great deal toward the improvement of society and Indian economy also. Later on, in the year 1992-93 for the proposals of Narasimham Committee new financial standards were presented in Indian banking alongside authorizing to private area banks and computerization of Indian banking in a staged way. To make Indian banking completely mechanized Indian private and public area banks had begun to build up ATMs in significant urban areas of India and in a couple of years ATMs procured a focal spot in financial practices.

Inside a brief period ATMs access came to up to average person. All the while numerous issues were being looked by the clients and different beneficiaries of banking administrations. These issues have made disappointment among the clients, keeping in view the ATM banking practices and consumer loyalty's, the current investigation has been embraced by the specialist. The primary purpose of this examination is to work out a successful procedure and healing measures for banks just as clients.

CHAPTER - 3

RESEARCH METHODOLOGY

CHAPTER - 3

RESEARCH METHODOLOGY

In India, HSBC set the precedent and set up the main ATM machine in1987 in Mumbai. Later new private area banks have started to lead the pack in presenting ATMs incredibly and the public area banks additionally sought after the establishment of ATMs everywhere on the nation. As one finish of August 2016 the all out number of ATMs is 215,763 in the nation. Public area Banks and State Bank bunch with around 144599 ATMs represented 67% of the ATMs. The private area banks have 57198 ATMs representing 26.5% of the ATMs and the 0.46% (1004) ATMs are conveyed by unfamiliar banks and equilibrium 12962 (6%) are WLAs introduced by NBFCs.Nearly 200 million exchanges are prepared each month in NFS, of which 75 % are money withdrawal exchanges with a normal ticket size of Rs. 3,300/. The equilibrium 25% exchanges are non monetary exchanges.

Other than Cash Withdrawal and Balance Inquiry exchanges, by and by, NFS underpins other Value Added Services (VAS) like Pin Change and Mini Statement through the ATMs. There are plans to expand the VAS, for example, Card-to-Card Transfer, Check Book Request, Statement Request, and so forth through the ATMs. Practically all the ATMS in the nation are essential for NPCI'S public monetary switch (NFS) network which encourages steering of ATM exchanges through bury availability between the Bank's frameworks, subsequently empowering the ATM/charge cardholders of the nation to use the administrations in any ATM of an associated bank.

Regarding rules/guidelines, just banks were allowed by Reserve Bank of India (RBI) to set up Automated Teller Machines (ATMs) as broadened conveyance channels till June 2012. Banks assumed a significant job in empowering ATM selection by clients and adjusting conduct systems in the area of individual banking. The interests in ATMs have been utilized for conveyance of a wide assortment of banking administrations to clients across the financial business and extended the extent of banking to whenever, anyplace banking through interoperable stages given by the approved shared ATM Network Operators/Card Payment Network Operators. Albeit in June 2012, there had been almost 23-25 % year-on year development in the

quantity of ATMs (90,000+), their organization had been overwhelmingly in Tier I and II focuses. So there was a need to grow the compass of ATMs in Tier III to VI focuses (order of focuses as endorsed under the Census of India 2011). Despite the banks' spearheading endeavors toward this path, much should be finished. Likewise, the RBI gave the rules on June20,2012 to allow non-bank elements fused in India under the Companies Act 1956, to set up, possess and work ATMs in India. Non-bank elements that mean setting up, claiming and working ATMs, would be initiated "White Label ATM Operators" (WLAO) and such ATMs are classified "White Label ATMs" (WLAs). They give the financial administrations to the clients of banks in India, in view of the cards (charge/credit/paid ahead of time) gave by banks. The WLAO's job would be restricted to securing of exchanges of all banks' clients and thus they would require to set up specialized availability with the current approved shared ATM Network Operators/Card Payment Network Operators.

METHODOLOGY/RESEARCH DESIGN

AREA OF STUDY: Public and private sector banks of india

POPULATION TAKEN FOR RESEARCH: In request to save monetary assets and time the investigation proposes to reach inferences for the benefit of sampling. The example size of the investigation is 300 clients ,150 clients from every classification of bank for example public and private.

SAMPLING METHOD - The arbitrary sampling technique has been utilized in choice of respondents. Arbitrary sampling is characterized as a sampling procedure where each thing in the populace has an even possibility and probability of being chosen in the example. Here the choice of things totally relies upon karma or likelihood, and along these lines this sampling procedure is likewise now and again known as a technique for possibilities.

Straight forward irregular sampling is a major sampling strategy and can undoubtedly be a segment of a more mind boggling sampling technique. The fundamental property of this sampling technique is that each example has a similar likelihood of being picked.

DATA COLLECTION - The examination depends on Primary just as Secondary data. Essential data has been gathered through poll and Secondary data from various distributed pamphlets, different books, diaries, and magazines, RBI Reports, IBA journal and world wide web.

DATA PROCESSING AND DATA ANALYSIS - Based on data/data so gathered from different sources the data preparing, data investigation and translation will be made to make the examination more important and complete. Fundamental factual apparatuses like midpoints, rate, pattern examination, t-test, Z-test, Chi-Square test and so forth will be utilized to finish the motivation behind the investigation. The utilization of tables, outlines, charts and graphs and so forth will likewise be made any place it will be required and considered significant for clearness of contemplations, simple arrangement and to make the introduction of examination more viable.

TABLE NO. -3.1

TOTAL ATMs IN PUBLIC, PRIVATE AND FOREIGN SECTOR BANKS

Year	Public Bank	% Growth	Private Bank	% Growth	Foreign Bank	% Growth	Total	% Growth
2004-05	9992	-	6853	-	797	-	17642	-
2005-06	12608	26.18	7659	11.76	880	10.40	21147	19.87
2006-07	16329	29.50	9799	27.94	960	9.09	27088	28.09
2007-08	21788	33.43	11967	22.12	1034	7.71	34789	28.43
2008-09	27277	25.19	15320	28.02	1054	1.93	43651	25.47

2009-10	40680	49.13	18447	20.41	1026	-2.65	60153	37.80
2010-11	49487	21.64	23651	28.21	1367	33.24	74505	23.86
2011-12	58193	17.59	36079	52.55	1414	3.44	95686	28.43
2012-13	69652	19.69	43101	19.46	1261	-10.82	114014	19.15
2013-14	110424	58.53	48470	12.45	1164	-7.70	160058	40.38
2014-15	128811	16.65	51490	6.23	1097	-5.75	181398	13.33
2015-16	142312	10.60	55581	8	1059	-3.5	199099	9.75
Till Aug.2016	144599	-	57198	--	1004	-	202801	-
AVE. Growth Rate		26%		22.5%		3.3%		26%

Source: Trends and progress of Indian banking: Various issue, Annual RBI publications available on www.rbi.org.in

FIGURE 1- GRAPH NO. : 3.1
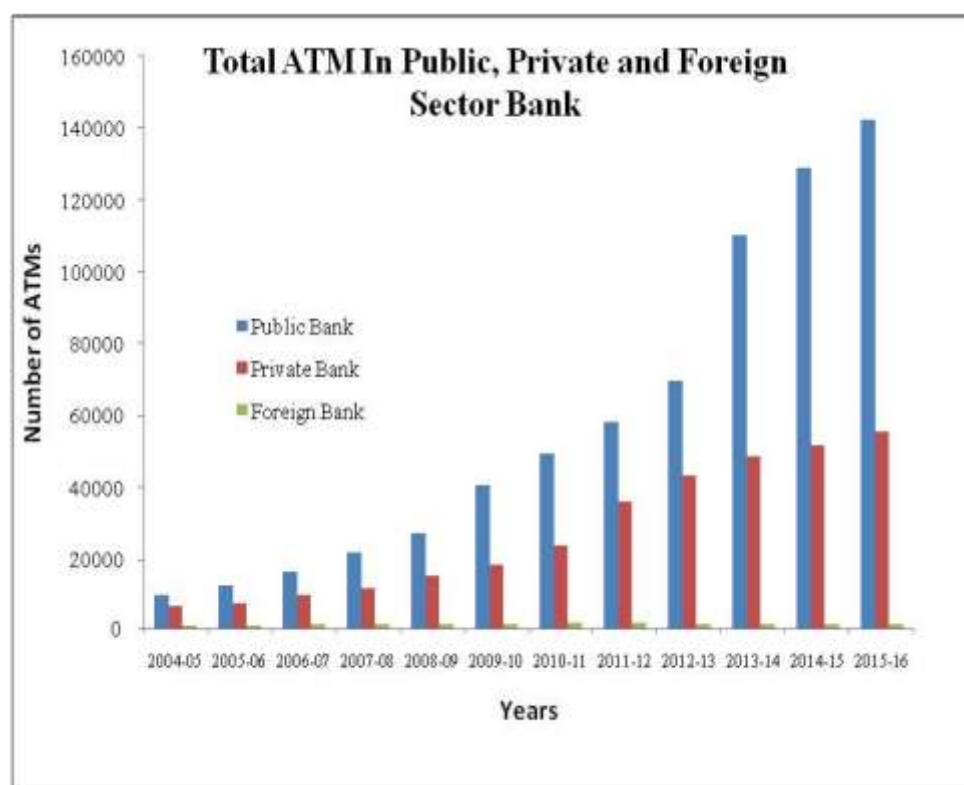
Table 3.1 and Graph 3.1 show the similar development and advancement of ATM banking in open area bank, private area banks and unfamiliar area banks from 2004-05 to 2015-16.Average development of public area during the period is 26% and 22.5 % is in private area .On the other hand unfamiliar area banks have just 3.3% normal development rate . ATMs establishment of public Sector banks and Private Banks is developing with an expedient rate yet unfamiliar area banks didn't show their exhibition true to form in a decades ago. Their development of e-banking tasks establishment component is extremely moderate, truth be told there has been 8.8% normal negative development rate additionally during the most recent four years for example from 2012 to 2016 in unfamiliar area. Public and private area banks are attempting to pull in new clients through enormous number of appealing plans and furthermore putting forth attempts toward the path to support old clients as well.

FIGURE 1-CHART NO. : 3.1
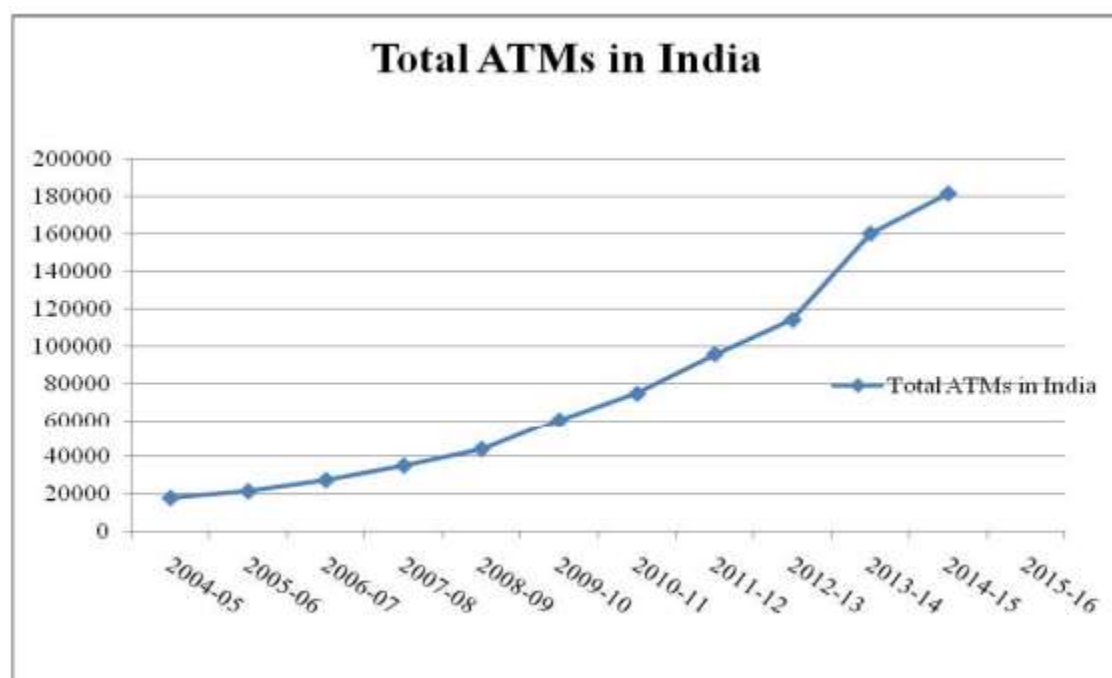
Chart 3.1 Line portrays the developing inclination of absolute ATMs consistently in India. Normal development of absolute ATMs in India during the period 2005-06 to 2015-16 is 26% determined by mathematical mean. Most extreme development is 40.38% during the year 2014-15 present in table 3.1 and chart 3.1 also. Normal development rate for the decade 2005-06 to 2015-16 is broke down in two sections for example for the initial five years normal development rate is 27.6% though for the following five years, it is 24.5 %.It shows there has been a consistent development pattern of complete ATMs in India during the most recent ten years before 2015-16.

A. ATM BANKING IN PUBLIC SECTOR BANKS

TABLE NO. : 3.2

YEAR	Trends of ATM Banking in Public Sector Banks				
	ON THE SITE	OFF THE SITE	TOTAL	% OF ON THE SITE TO TOTAL	% OF OFF THE SITE TO TOTAL
2004-05	4753	5239	9992	47.56	52.44
2005-06	6587	5921	12608	52.24	47.76
2006-07	10289	6040	16329	63.01	36.99
2007-08	12902	8886	21788	59.20	40.80
2008-09	17379	9898	27277	63.70	36.30
2009-10	23,797	16,883	40,680	58.50	41.50
2010-11	29,795	19,692	49,487	60.20	39.80
2011-12	34,012	24,181	58,193	58.45	41.55
2012-13	40,241	29,411	69,652	57.77	42.23
2013-14	65920	44504	110424	59.70	40.30
2014-15	69902	58909	128811	54.27	45.73
2015-16	80252	62060	142312	56.43	43.56

Till august 2016	81306	63293	144599	56.22	43.77

This table is indicating the information related on the site and off the site ATMs of public area banks and their proportion with complete number of ATMs during the time of 2004-05 to 2015-16. On the site ATMs are alluded to those ATMs which have been introduced along the part of a specific bank and off the site ATMs are those which are arranged in noticeable areas of the city separate from the bank office.

FIGURE 2-GRAPH NO. : 3.2
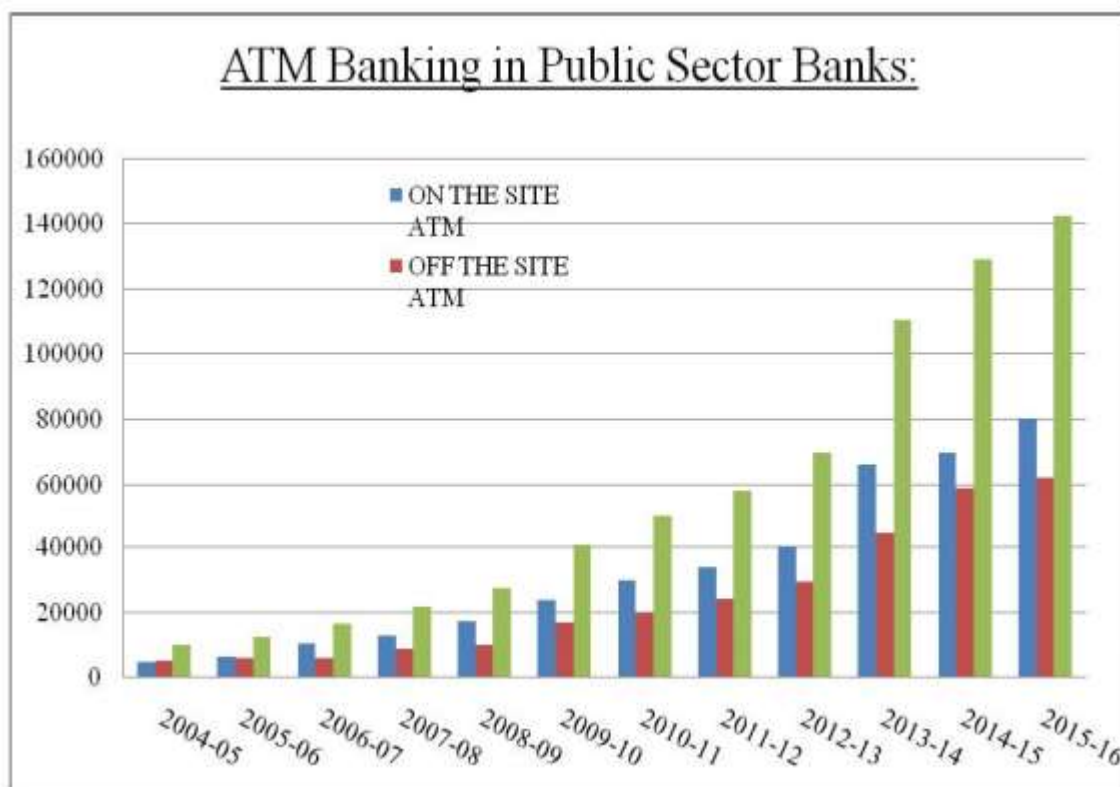
Above diagram shows the year astute development of on the site, off the site and complete ATMs in open area banks. Every one of the three factors are reflecting consistent development in number of ATMs and its utility. It shows the quick development of establishment of ATMs by open area banks. Clients are receiving

increasingly more paperless financial tasks. Quantities of ATMs in open area banks are expanded commonly in most recent ten years. During the period from 2005-06 to 2015-16 the proportion of on the site ATMs being more prominent than off the site ATMs signifies that ATMs were introduced on the site more than off the site.

TABLE NO. : 3.3 REGION-WISE DEPLOYMENT OF ATMs AT END OF MARCH 2016 (PUBLIC SECTOR BANKS)

A. Public Sector Banks	Metro Centers	Urban Centre	Semi-Urban Centre	Rural Centre	Total
Allahabad Bank	289	403	288	232	1212
Andhra Bank	712	1090	1112	722	3636
Bank of Baroda	3011	2487	2369	2243	10110
Bank of India	1209	2574	2226	1798	7807
Bank of Maharashtra	481	385	434	561	1861
Canara Bank	2507	2395	2395	1954	9251
Central Bank of India	1029	1077	1403	1745	5254
Corporation Bank	685	752	951	652	3040
Dena Bank	352	324	340	455	1471

Indian Bank	575	753	780	676	2784
Indian Overseas Bank	810	928	1061	994	3793
Oriental Bank of Commerce	635	689	664	578	2566
Punjab and Sind Bank	169	392	256	524	1341
Punjab National Bank	1989	2936	1853	2685	9463
Syndicate Bank	773	872	956	1129	3730
UCO Bank	427	594	707	836	2564
Union Bank	1933	1884	1687	1379	6883
United Bank	273	556	524	691	2044
Vijaya Bank	383	442	463	363	1651
IDBI Bank	831	1277	811	391	3310
Total	**19073**	**22810**	**21280**	**20608**	**83771**
% of (A+B)	**63.17**	**54.53**	**52.44**	**69.35**	**58.86**
B. State Bank Group					
State Bank of Bikaner & Jaipur	401	522	567	464	1954

State Bank of Hyderabad	490	742	787	361	2380
State Bank of India	9547	16528	16143	7359	49577
State Bank of Mysore	352	374	360	330	1416
State Bank of Patiala	205	420	406	476	1507
State Bank of Travancore	122	431	1038	116	1707
Total	**11117**	**19017**	**19301**	**9106**	**58541**
% of (A+B)	**36.82**	**45.46**	**47.56**	**30.64**	**41.13**
Grand Total (A+B)	**30190** **(21.21%)**	**41827** **(29.40%)**	**40581** **(28.51%)**	**29714** **(20.88%)**	**142312** **(100%)**

Source: Annual RBI Publications Available on www.rbi.org.in

The region-wise number of ATMs of various public sector banks as of the end of March 2016 is shown in Table 3.3. In the urban zone, maximum ATMs are installed, i.e. 29.40 percent of the total ATMs in public sector banks. 45.46 percent of them are installed by the State Bank Party. State Bank Group has a 41.13 percent share of total public sector banking ATMs and its highest number of ATMs (19301) is in semi-urban areas, accounting for 47.56 percent of its total ATM units.

TABLE NO. - 3.4

B. ATM BANKING IN PRIVATE SECTOR BANKS

Years	Trends of ATM Banking in Private Sector Banks

	On the Site	Off the site	Total	% of on the site to Total	% of off the site to Total
2004-05	2683	4170	6853	39.15	60.84
2005-06	3309	4350	7659	43.20	56.80
2006-07	4258	5541	9799	43.45	56.55
2007-08	5315	6652	11967	44.41	55.59
2008-09	6996	8324	15320	45.67	54.33
2009-10	8,603	9,844	18,447	46.64	53.36
2010-11	10,648	13,003	23,651	45.03	54.97
2011-12	13,249	22,830	36,079	36.72	63.28
2012-13	15,236	27,865	43,101	35.35	64.65
2013-14	17200	31270	48470	35.48	64.52
2014-15	18897	32593	51490	36.70	63.30
2015-16	21290	34291	55581	38.30	61.70
Till August	22085	35113	57198	38.61	61.39

2016					

Source: Trends and Progress of Indian Banking Various Issues: Annual RBI Publications Available on www.rbi.org.in

Table 3.4 displays the data linked to private sector banks' on-site and off-site ATMs from the years 2004-05 to 2015-16. Research shows that private sector bank ATMs are rising at a rapid rate, and off-site ATMs are more numerous than on-site ATMs each year.

FIGURE 3-GRAPH NO. : 3.4
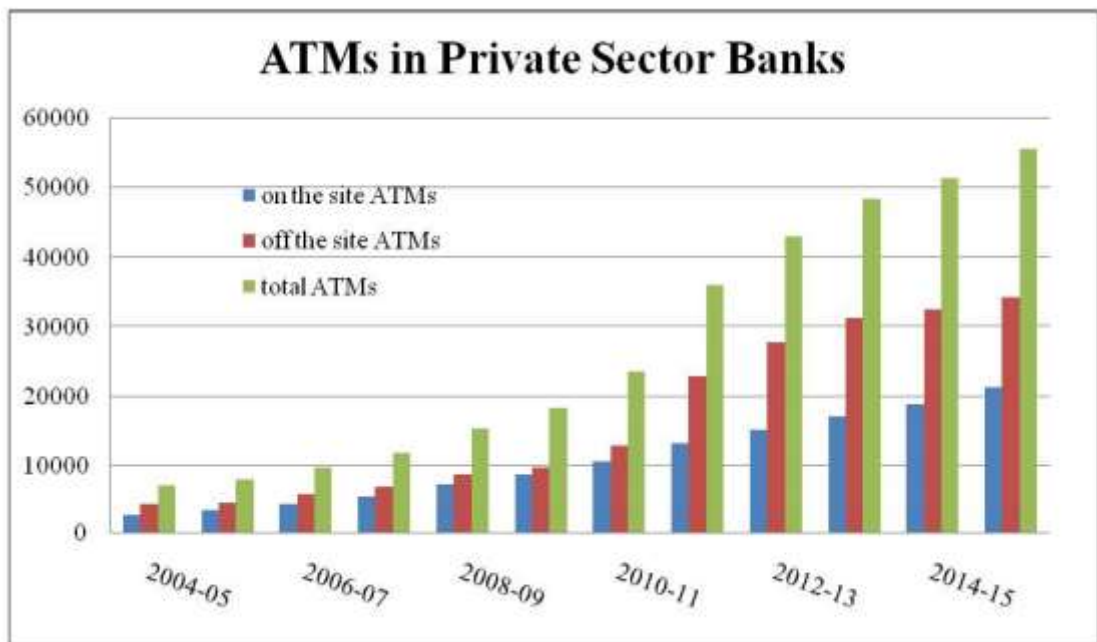
Graph-3.4 demonstrates the pattern of private sector banks' overall ATMs on the site and off the site. The trend in total ATMs shows that ATM-based baking development has ATMs operating more effectively compared to public sector banks. Graph 3.4 reveals that more ATMs were built off-site than on-site ATMs, while the situation is quite the reverse in public sector banks. In reality, an off-site ATM acts as a separate branch of a specific bank and no manpower is involved in its activities.

TABLE NO. : 3.5 REGION-WISE DEPLOYMENT OF ATMs AT THE END OF MARCH 2016

(PRIVATE SECTOR BANKS)

Private Sector Banks	Metro centers	Urban centers	Semi-urban Centers	Rural Centers	Total
Axis (UTI) Bank	4341	3686	3236	1480	12743
Bandhan Bank	77	116	33	2	228
Catholic Syrian Bank Ltd.	44	86	105	7	242
City Union Bank	204	567	430	115	1316
Development Credit Bank Ltd.	214	77	79	40	410
Dhanalaxmi Bank	128	116	126	28	398
Federal Bank Ltd.	215	315	865	121	1516
HDFC Bank Ltd.	4920	3251	2799	1030	12000
ICICI Bank Ltd.	7631	3649	1983	503	13766
IDFC Bank Ltd	8	2	0	1	11

IndusInd Bank Ltd	982	494	223	101	1800
J & K Bank	46	406	279	275	1006
Karnataka Bank	370	436	337	132	1275
Karur Vysya Bank	380	503	588	184	1655
Kotak Mahindra Bank Ltd	1332	418	209	73	2032
Lakshmi Vilas Bank Ltd.	217	291	298	104	910
Ratnakar Bank	131	95	97	39	362
South Indian Bank	216	329	593	149	1287
Tamilnad Mercantile Bank	93	226	464	232	1015
Yes Bank Ltd.	993	463	130	23	1609
Total	22542 (40.56%)	15526 (27.93%)	12874 (23.16%)	4639 (8.34%)	55581 (100%)

Source: Annual RBI Publications Available on www.rbi.org.in

FIGURE 4-GRAPH NO. : 3.5

Regionwise Deployment of ATMs
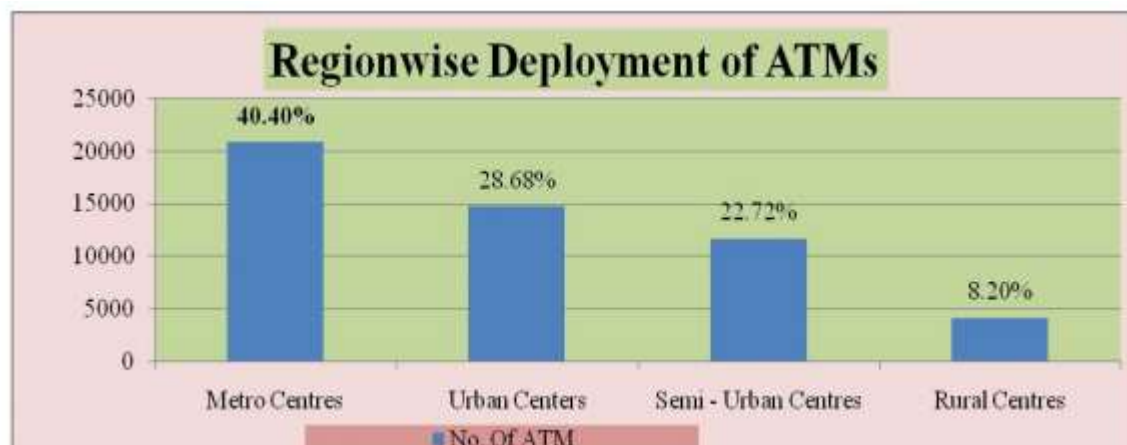
From Table 3.5 and Graph-3.5 above, it is seen that private banks are very slow at installing their rural ATMs. It amounts to social banking evasion. On the other hand, public sector banks in rural areas have a larger number of ATMs. Indeed, in order to channel their limited savings and get rid of cash lenders, India's rural sector needs a more sound financial structure. Private sector banks have a limited number of ATMs in metro cities where their services are used by only the upper income segment of society. The bar-diagram (graph no.-3.5) shows the level of banking efficiency in different areas of the national economy.

C. ATM BANKING IN FOREIGN SECTOR BANKS

Foreign banks' banking activities are limited to metropolitan cities. There is no access to them in rural India or in our country's small towns. They negotiate with holders of rich accounts. The rise and growth of foreign sector bank ATMs are shown in the table below.

TABLE NO: 3.6

Year	Trends of ATMs in Foreign Sector Banks				
	On the Site	Off the site	Total	% of on the site to Total	% of off the site to Total
2004-05	218	579	797	27.35	72.64
2005-06	232	648	880	26.36	73.64
2006-07	249	711	960	25.94	74.06
2007-08	269	765	1034	26.02	73.98
2008-09	270	784	1054	25.62	74.38
2009-10	279	747	1026	27.19	72.81
2010-11	286	1081	1367	20.92	79.08
2011-12	284	1130	1414	20.08	79.92
2012-13	283	978	1261	22.44	77.55
2013-14	260	904	1164	22.34	77.66
2014-15	262	835	1097	23.88	76.12
2015-16	261	798	1059	24.64	75.35

Till Aug. 2016	260	744	1004	25.90	74.10

Source: Trends and Progress of Indian Banking Various issues.

In contrast to public sector banks and private sector banks, international banks have a much smaller number of ATMs. In the ATM banking market, they only play a 0.46 percent position. They only have 260 ATMs on the network and 744 ATMs off the site at the end of August 2016. Thus, the overall trend shows that off-site ATMs are rising at a rapid pace compared to on-site ATMs in this market. On-the-spot ATM growth is not considered to be very large. In the era of e-banking, the drop in the number of ATMs may be regarded as a troubling condition, with a decrease in the number of ATMs from 2012-13 to 2016 in the total number of ATMs from 1261 to 1004. The graph below (3.6) displays the on-site and off-site ATM patterns over the past ten years.

FIGURE 5-GRAPH NO. : 3.6
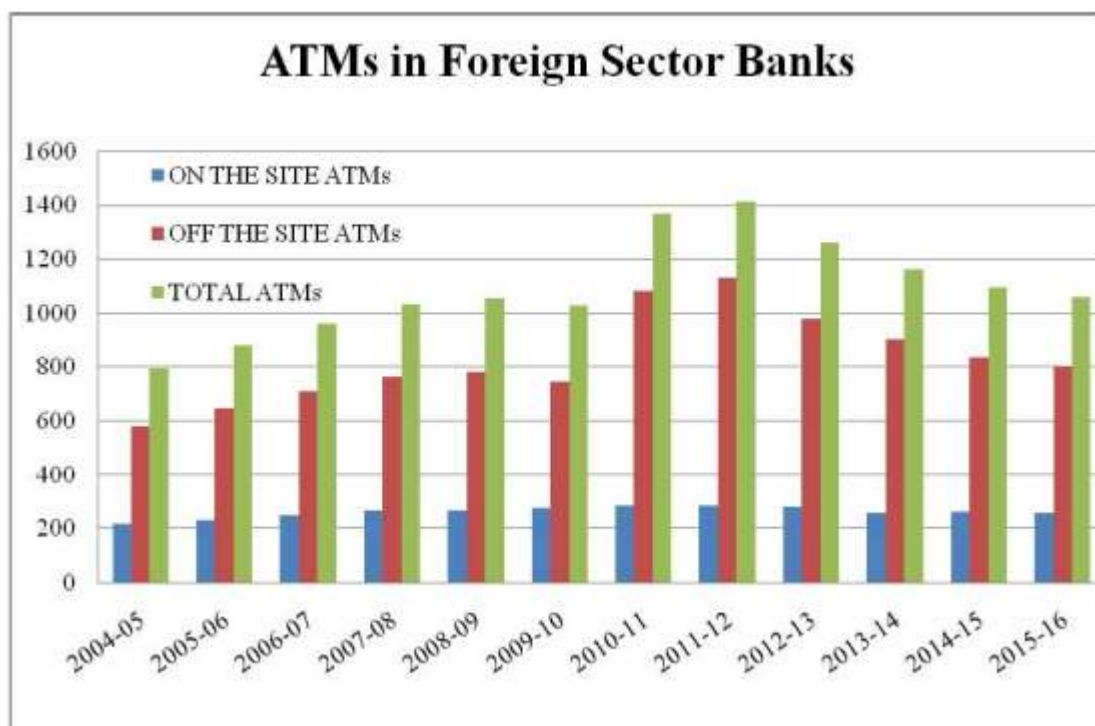
TABLE NO. : 3.7 REGION-WISE DEPLOYMENT OF ATMs AT END OF MARCH 2016 (FOREIGN SECTOR BANKS)

Foreign Banks	Metro centers	Urban centers	Semi urban Centers	Rural Centers	Total
CITI Bank	412	107	20	30	569
DBS Ltd.	30	0	0	0	30
Deutsche Bank	18	11	0	0	29
FirstRand Bank	0	7	0	0	7
HSBC	100	24	1	1	126
RBS (ABN AMRO)	49	8	0	0	57
Standard Chartered	182	59	0	0	241
Total	791	216	21	31	1059

Source: Annual RBI Publications Available on www.rbi.org.in

Table 3.7 indicates the region-wise deployment at the end of March 2016 of foreign bank ATMs. The overall number of ATMs built by foreign banks in metro regions is far lower in urban areas and even lower in semi-urban and rural regions. They own just 21 ATMs in semi-urban areas, only 2.0 percent of their total ATMs. A limited number of ATMs (2.93 percent of the total) have been built in rural areas where rural India is home to around 70 percent of India's population. This means that foreigners are much less involved in India's social banking system. They are concentrating more on their target of profit making.

TABLE NO. - 3.8: STATE-WISE DEVELOPMENT OF FOREIGN SECTOR BANKS' ATMs FOR THE QUARTER ENDED MARCH 2016

Table 3.8 indicates that Haryana holds the highest number of international ATMs and Gujarat holds the second position. In India, only 21 states & UTs have international bank ATMs, while the other 15 have no access to foreign ATM banking at all.

Name of States	Name of Banks							Total
	City Bank	Dutch Bank	DBS Ltd	First Rand Bank	HSBC	RBS (ABNAM RO)	Standard Chartered Bank	
Andaman & Nicobar	0	0	0	0	0	0	0	0
Andhra Pradesh	1	0	0	0	5	3	10	19
Arunachal	0	0	0	0	0	0	0	0

Pradesh							
Assam	0	0	0	0	1	0	1	2
Bihar	0	0	0	0	1	0	1	2
Chandigarh	4	0	0	0	0	0	2	6
Chhattisgarh	0	0	0	0	1	0	0	1
Dadranage Havelil	0	0	0	0	0	0	0	0
Damn	0	0	0	0	0	0	0	0
Delhi	47	3	3	0	8	27	36	124
Diu	0	0	0	0	0	0	0	0
Goa	2	0	0	0	0	0	0	2
Gujarat	14	3	0	0	3	1	9	30
Haryana	45	2	0	0	9	0	25	81
Himachal Pradesh	0	0	0	0	0	0	0	0
Jammu & Kashmir	0	0	0	0	0	0	0	0

Jharkhand	0	0	0	0	0	0	0
Karnataka	162	4	4	0	15	8	24	217
Kerala	2	0	0	0	2	0	6	10
Lakshadweep	0	0	0	0	0	0	0	0
Madhya Pradesh	3	0	0	0	1	0	4	8
Maharashtra	146	9	14	7	38	8	55	277
Manipur	0	0	0	0	0	0	0	0
Meghalaya	0	0	0	0	0	0	0	0
Mizoram	0	0	0	0	0	0	0	0
Nagaland	0	0	0	0	0	0	0	0
Orissa	1	0	0	0	0	0	1	2
Pondicherry	1	0	0	0	0	0	0	1
Punjab	3	1	0	0	1	0	3	8
Rajasthan	5	0	0	0	2	0	5	12
Sikkim	0	0	0	0	0	0	0	0

Tamilnadu	53	3	3	0	11	9	24	103
Telangana	44	0	0	0	6	0	0	50
Tripura	0	0	0	0	0	0	0	0
Uttar Pradesh	20	3	2	0	7	0	16	48
Uttrakhand	0	0	0	0	0	0	1	1
West Bengal	16	1	4	0	15	1	18	55
Total	**569**	**29**	**30**	**7**	**126**	**57**	**241**	**1059**

Source: Annual RBI Publications Available onwww.rbi.org.in

SECTOR-WISE STATUS OF ATM BANKING

TABLE-3.9 AND GRAPH-3.9- BELOW SUMMARIZE SECTOR-WISE STATUS OF ATM BANKING IN INDIA:

TABLE NO. : 3.9

Sector-wise Status of ATMs as one end of August 2016	
Public Sector Banks	144599
Private Sector Banks	57198
Foreign Banks	1004

	12962
TOTAL	215763

FIGURE 6-GRAPH NO. : 3.9

Sector-wise Status of ATMs As On August 2016

- Public Sector Banks
- Private Sector Banks
- Foreign Banks
- NBFCs' White Lebal ATMs
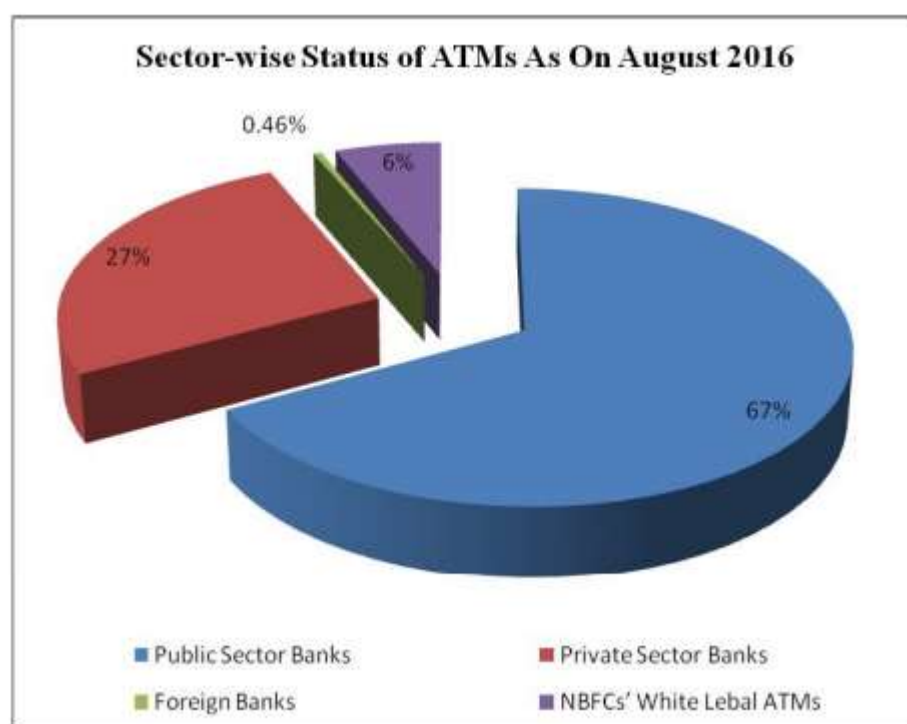
ATM deployment is a practical measure of growth and development in the banking sector. It represents the leadership capacity of a bank to use its e-banking capabilities to generate income. At the end of August 2016, 67% of India's ATMs were deployed by public sector banks and 26.54% by private sector banks. The International Sector accounts for just 0.46 percent of ATMs that are primarily in metropolitan cities and 6 percent are a recent pattern of ATMs called WLAs installed by NBFC. Banks in the public sector are at the forefront of both finance and ATM banking.

CHAPTER – 4

DATA ANALYSIS

CHAPTER – 4

DATA ANALYSIS

This part manages different parts of ATM banking like consumer loyalty's client's assumptions and administrations offered by banks, cost viability, issues looked by clients, demographical factors and so forth administrations gave through the innovation empowered banking, for example, ATM, web banking, tele-banking and versatile banking have likewise been made. Their associations with different factors have additionally been assessed. Correlation of public and private area's banks administrations give a ground to clients and strategy creators, so an assessment has been made toward this path. Fulfillment and administration nature of ATM administrations have been estimated utilizing the scales produced for this reason. These qualities have additionally been looked at among public and private banks. The outcomes are introduced in the types of charts and measurable qualities. To save monetary assets and time the examination proposes to make determinations in the interest of testing. The example size of the examination is 300 clients 150 clients from every class of bank for example public and private. A Survey of 150 clients of every open and private area banks has been led by direct close to home meeting or roundabout individual examination.

4.1 STUDY OF DEMOGRAPHICAL FACTORS

4.1.1 GENDER RATIO

TABLE NO. : 4.1

Gender Ratio				
Public Sector		Private Sector		Total
Male	Female	Male	Female	
87	63	82	68	300

FIGURE 7-GRAPH NO. : 4.1
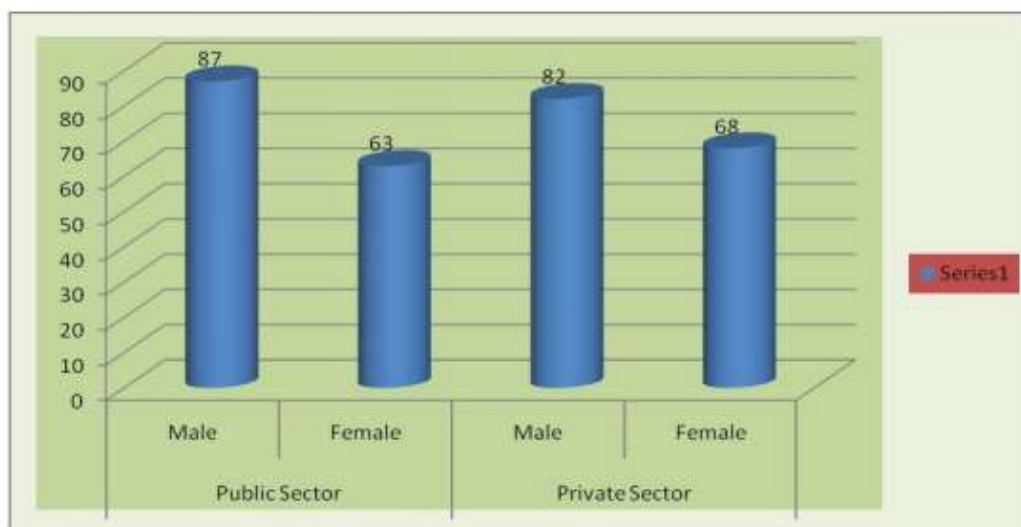
This graph reveals that about 56% of the respondents are male and 44% are female. As we know, men are predominantly responsible for earning in our Indian social system, and they are more conscious and regular ATM users, i.e. men are more in percentage, but studies show that female ATM users are growing day by day.

4.2 PERIOD OF USING ATM

The first ATM was founded in India by HSBC Bank in 1987, but it was confined to metropolitan cities until 2000. The largest number of users were in large cities, but the development of branches of new private sector banks in small cities broadened the reach of the ATM. Nowadays, individuals prefer ATM transactions instead of visiting the same bank branch.

TABLE NO. : 4.2

Time period	Public		Private	
	No. Of Customers	CumulativeValue	No. Of Customers	Percentage

	Value	%	Value	%	Value	%	Value	%
Above 10 years	11	7.33	11	7.33	13	8.67	13	8.67
10years	19	12.67	30	20	22	14.67	35	23.34
8 years	32	21.33	62	41.33	29	19.33	64	42.67
8 years	29	19.33	91	60.67	26	17.33	90	60
10 years	23	15.33	114	76.00	18	12.00	108	72
From 2 year	36	24.00	150	100	42	28.00	150	100

The above table indicates from what time period ATMs are used by customers of public and private sector banks. Over the last 10 years, only 20% of public sector banks' customers have used ATM, while this figure is 23.34% in private sector banks. Of all 24 percent of public sector banks' customers and 28 percent of private sector banks, those who have started using ATMs in the past two years are those.

FIGURE 8-GRAPH NO.-4.2
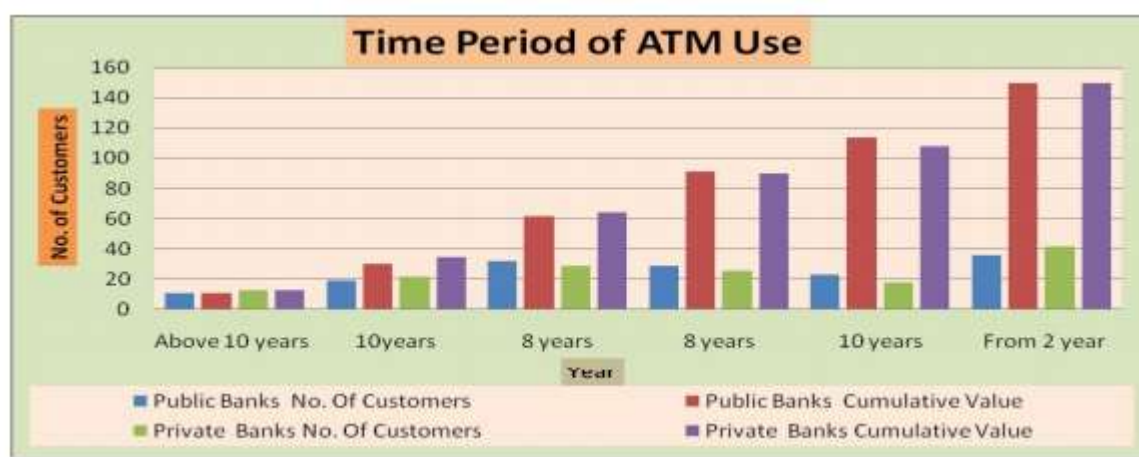
4.3 AGE GROUP OF ATM USERS

TABLE NO. : 4.3-AGE GROUPS OF PUBLIC AND PRIVATE SECTOR BANKS

Bank	Public Sector		Private Sector		Total	Percentage
Age (Years)	Value	%	Value	%		
Below 25	16	10.67	20	13.33	36	12
25-40	62	41.33	72	48.00	134	45
40-60	62	41.33	54	36.00	116	38.67
Above 60	10	6.67	4	2.67	14	4.33

FIGURE 9-GRAPH NO. : 4.3
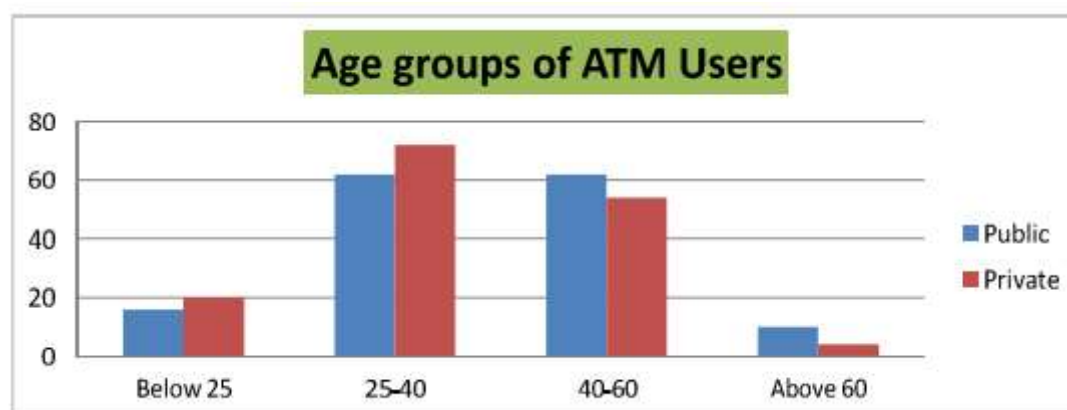
Age has a major influence on the pattern of usage of services dependent on technology. In general, young people tend to use technology-based distribution

platforms such as ATMs. Due to perceived risk of failure, difficulty, protection, and lack of personalized service, old people hesitate to use ATM. The above graph reveals that 12 percent of users are under 25 years of age and 45 percent are in the 25-40 age range, while 38 percent are 40-60 years of age. It is highly outrageous that just 4% fall into the age group category above 60. It has been found that old age individuals use their ATMs through young people and, on the other hand, individuals do not give ATM to age groups below 18 years in many families. It's clear that young people are the key users of ATMs.

4.3.1 ANALYSIS OF AGE WITH CHOICE OF SECTORS FOR ATM

NULL HYPOTHESIS (H_0): AGE DOES NOT INFLUENCE ATM USERS IN THEIR CHOICE OF PUBLICOR PRIVATE SECTOR BANKS.

Analysis of Age with Choice of Sector of ATM				
O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
16	18	-2	4	0.222222
62	67	-5	25	0.373134
62	58	4	16	0.275862
10	7	3	9	1.285714
20	18	2	4	0.222222
72	67	5	25	0.373134
54	58	-4	16	0.275862

4	7	-3	9	1.285714
				^{2} = 4.313866

Critical value on 5% significance level for d.f. 3 is 7.815.So, H0 is accepted.

Without a major difference, a specific age demographic utilizes ATM facilities from both industries. Age clearly influences the number of users of ATMs but does not influence their preference of banks in the public or private sector.

4.4 QUALIFICATION OF ATM USERS

TABLE NO. : 4.4 QUALIFICATION OF ATM USERS IN PUBLIC AND PRIVATE SECTOR BANKS

Bank	Public		Private		Total
Qualification	Value	%	Value	%	
Below Intermediate	61	40.67	30	20	91
Graduation	48	32.00	66	44	114
Post Graduation	36	24	48	32	84
Other	5	3.33	6	4	11

Survey performed on 300 clients for educational qualification shows that 38 percent are under graduates and 28 percent are postgraduates. Educational credentials have a strong high-degree income association and people with modest incomes have highest ATM use.

FIGURE 10-GRAPH NO. : 4.4
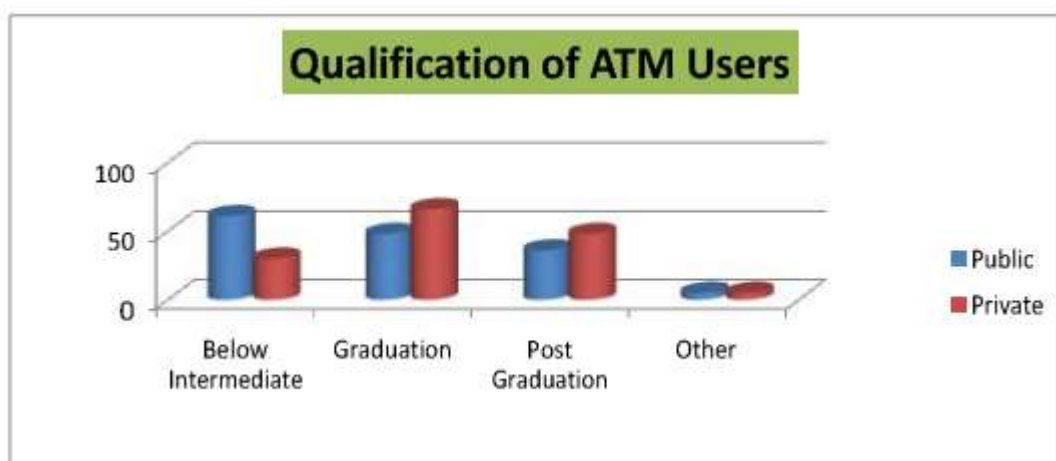
The graph above indicates that the number of intermediate respondents below is lower for private sector banks than for public sector banks. In the private sector, highly skilled, graduate and post-graduate consumers are more likely than in public sector banks. It can be inferred that highly qualified individuals are clients of private banks, while public sector banks provide less qualified individuals with services. Living in rural and semi-urban areas is the highest number of less eligible citizens in our country and access to private sector banks is very scarce in those areas. That is why private sector banks in rural areas are resisting the installation of their ATMs. The Chi-square test also confirms these observed facts and demonstrates that credentials have a substantial effect on the usage of private and public sector banks' ATM services. Less educated individuals, it is found, often prefer public sector banks.

4.4.1 QUALIFICATION OF ATM USERS

H0: QUALIFICATION HAS NO IMPACT ON AVAILING ATM SERVICES FROM PRIVATE OR PUBLIC SECTOR BANKS.

O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
61	30.5	30.5	930.25	30.5

48	57	-9	81	1.42
36	42	-6	36	0.86
5	5.5	-0.5	0.25	0.045
30	45.5	-15.5	240.25	5.28
66	57	9	81	1.42
48	42	6	36	0.86
6	5.5	-0.5	0.25	0.045
				$^2 = 40.43$

The estimated Chi-square value at df is 40.43 and the table value. = 3 and 5 percent significance level is 7.85. The null hypothesis is also denied. Using client trends, there is a major influence of education on ATM.

4.5 OCCUPATION OF ATM USERS

TABLE NO.: 4.5

An Assessment of Occupation of ATM Users						
Bank	Public		Private		Total	Percentage
Occupation	Value	%	Value	%		
Business	74	49.33	92	61.33	166	55.33

Profession	49	32.67	52	34.67	101	33.67
Student	9	0.06	2	1.33	11	3.67
Farmer	16	10.67	1	0.67	17	5.67
Others	2	1.33	3	2	5	1.67

FIGURE 11-Graph No. : -4.5
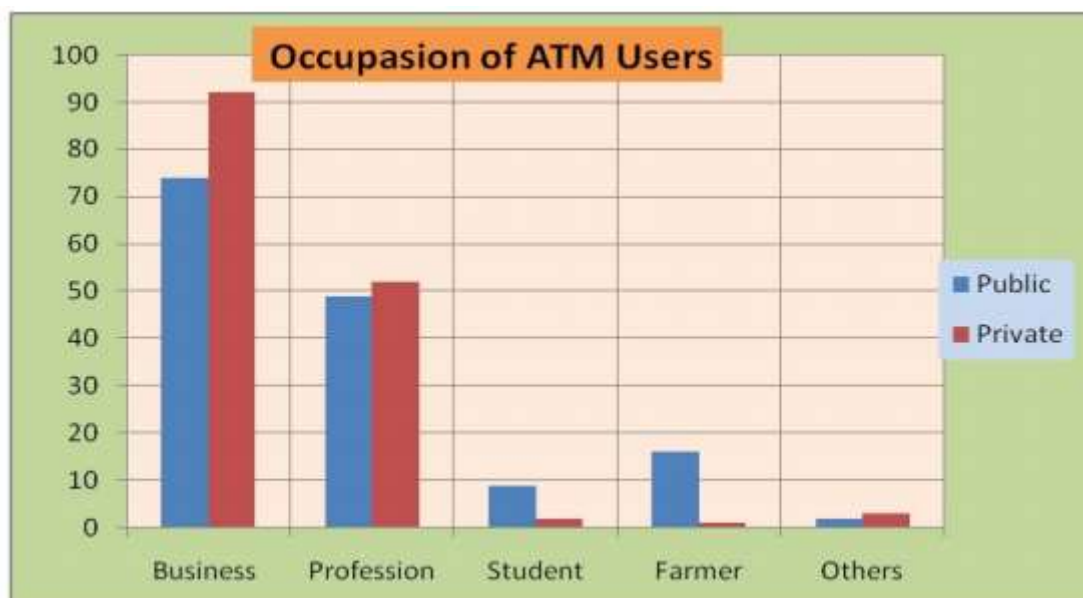
It can be inferred from the above graph that businessmen are using more private sector banks' ATMs and professionals also prefer them, but not in the same ratio. Farmers and students, on the other hand, use more ATMs from public sector banks and very few ATMs from private sector banks. Businessmen and academics are the majority of ATM users (89 percent). All consumers are included in the remaining 11%, i.e. clients such as farmers, students and others. Farmers in India are far larger in number than businessmen and professionals, but they are very weak ATM users, i.e. just 11% of the public sector and 0.67% of banks in the private sector.

H0 -OCCUPATION DOES NOT AFFECT TO ATM USER'S CHOICE FOR PUBLIC OR PRIVATE SECTORBANKS

O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
74	83	-9	81	0.975
58	56	2	4	0.071
18	11	7	49	4.45
92	83	9	81	0.975
54	56	-2	4	0.071
4	11	-7	49	4.45
				$\chi^2 = 11.004$

Degree of freedom 4 at 5% level of significant level, critical value is 9.488 and calculated value is 11.004 which is greater than critical value. So, null hypothesis is rejected. It means occupation significantly affects the choice of ATM users for public or private sector banks.

4.6 INCOME OF ATM USERS

TABLE NO.-4.6

Analysis of Income of ATM Users						
Bank	Public		Private		Total	Percentage
Income in Rs. (Per Month)	Value	%	Value	%		

5000-20000	68	45.33	6	4	74	25
20000-60000	46	30.67	24	16	70	23
60000-100000	23	15.33	48	32	71	24
Above 100000	13	8.67	72	48	84	28

FIGURE 12-GRAPH NO.: 4.6
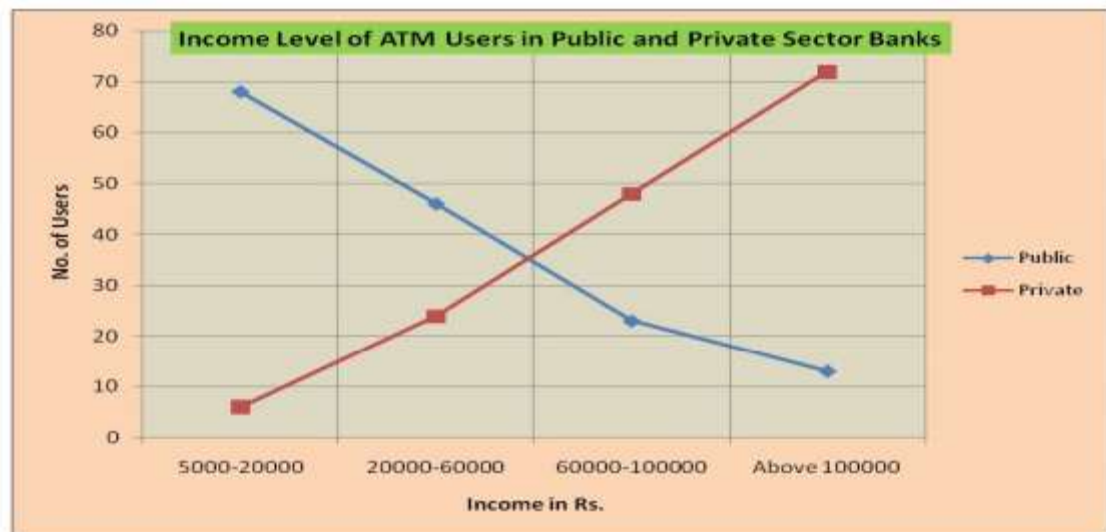
From the above table and graph, it can be inferred that low-income individuals are using public sector banks' ATMS and are switching to private sector banks as revenue rises. In the above graph, the blue line from low-income ATM users to high-income ATM users is decreasing.

In private banks, the pattern of the line showing low-income users is very low, but as revenue rises, the number of private sector bank users also increases. These facts are also confirmed by the Chi Square test.

H$_0$: Level of Income does not have any impact on ATM users in their choice ofpublic or private banks.

O	E	O-E	$(O-E)^2/E$
68	37	31	25.97
46	35	11	3.46
23	35.5	-12.5	4.40
13	42.5	-29.5	20.47
6	37	-31	25.97
24	35	-11	3.46
48	35.5	12.5	4.40
72	42.5	29.5	20.47
			^{2} =**108.61**

Chi-critical square's value for the degree of freedom 3 is 7.815 at the 5 percent significance stage and the estimated value is 108.61. H0 is, therefore, denied. This shows that the amount of income has a major effect on ATM users when selecting public or private sector banks. It was discovered during the analysis that higher revenue

4.7 ATM USAGE RATE ON PER MONTH BASIS

TABLE NO.: 4.7

Usage	Public Sector	Private Sector	Total	Percentage

	Value	%	Value	%		
1 time	9	6	18	12	27	9
2 times	17	11.33	24	16	41	14
3 times	28	18.67	32	21.33	60	20
4 times	39	26	37	24.67	76	25
5 times	33	22	22	14.67	55	18
More than 5 times	24	16	17	11.33	41	14

FIGURE 13-GRAPH NO. : 4.7
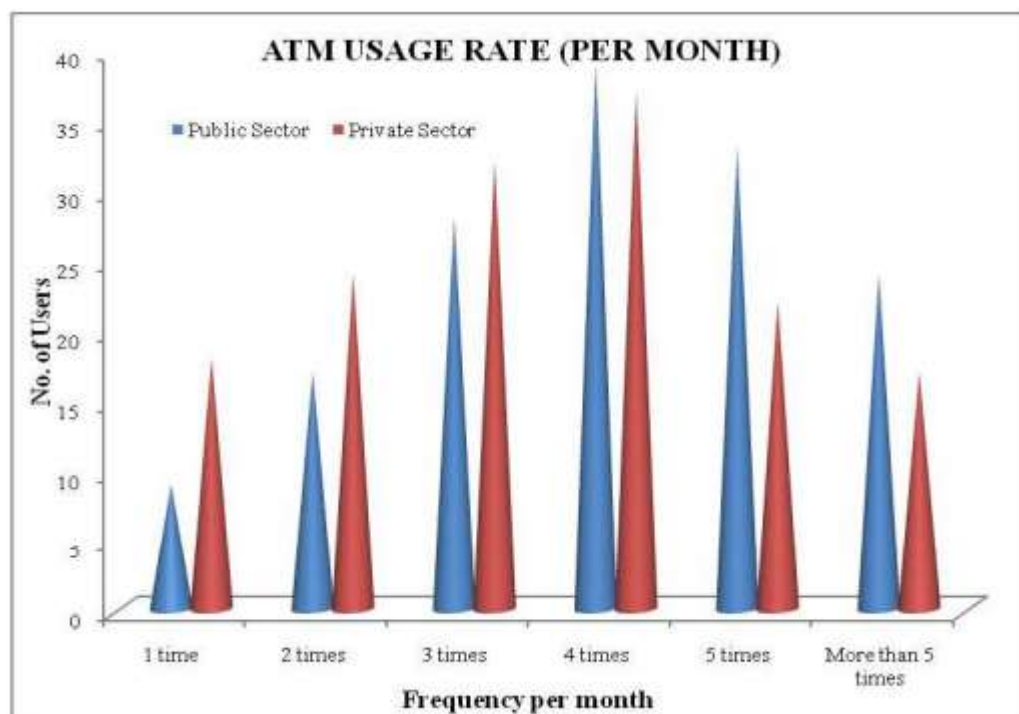
The results of the survey carried out on the ATM use rate of 300 customers of public and private sector banks are shown in the above table and graph. A maximum of 25%

of users use their ATMs four times a month and a minimum of 9% of users use their ATMs only once a month. Sixty-three percent of all users use the ATM 3 to 5 times.

H₀ = OWNERSHIP PATTERN (PUBLIC OR PRIVATE) OF A BANK DOES NOT INFLUENCE THEATM USING FREQUENCY OF CUSTOMERS

Analysis Of ATM Using Frequency Of Customers									
Public Sector Banks					Private Sector Banks				
x	dx	f	fdx	Fd_x2	Y	dy	f	fdy	Fd_y2
1	-3	9	-27	81	1	-3	18	-57	162
2	-2	17	-34	68	2	-2	24	-48	96
3	-1	28	-28	28	3	-1	32	-32	32
4	0	39	0	00	4	0	37	0	00
5	1	33	33	33	5	2	22	22	22
6	2	24	48	96	6	1	17	34	68
	-3	150	-8	306		-3	150	-78	380

$$\bar{x}_1 = A + \frac{\Sigma fd_x}{N} = 4 + \frac{-8}{150} = 3.95 \qquad \bar{x}_2 = A + \frac{\Sigma fd_y}{N} = 4 + \frac{-78}{150} = 3.48$$

$$\sigma_1 = \sqrt{\frac{\Sigma fd_x^2}{N} - \left(\frac{\Sigma fd_x}{N}\right)^2} = \sqrt{\frac{306}{150} - \left(\frac{-8}{150}\right)^2} = 1.43$$

$$\sigma_1 = 1.43$$

$$\sigma_2 = \sqrt{\frac{\Sigma fd_y^2}{N} - \left(\frac{\Sigma fd_y}{N}\right)^2} = \sqrt{\frac{380}{150} - \left(\frac{-78}{150}\right)^2} = 1.50$$

$$\sigma_2 = 1.50$$

$$Z = \frac{|\bar{x}_1 - \bar{x}_2|}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} = \frac{3.95 - 3.48}{\sqrt{\frac{(1.43)^2}{150} + \frac{(1.50)^2}{150}}} = \frac{0.47}{0.169}$$

$$Z = 2.781$$

The calculated value of Z is less than the table value 3.182 at 5% level of significance. So, null hypothesis is accepted. It may be concluded that ownership of banks does not influence ATM usrs frequency mean costumer frequency of using ATMs is almost equal in both sectors banks

4.8 STUDY CUSTOMER'S SATISFACTION TOWARDS VARIOUS ASPECTS OF ATM BANKING

4.8.1 PERFORMANCE OF THE EMPLOYEES AFTER IMPLEMENTATIONOF VARIOUS TECHNOLOGIES IN THE BANKING INDUSTRIES

TABLE NO.: 4.8

Performance Of The Employees After Implementation Of Various Technologies						
Satisfaction Level	Public	%	Private	%	Total	%

Fully Satisfied	58	38.67	63	42	121	40.33
Satisfied	34	22.67	39	26	73	24.33
Neutral	38	25.33	34	22.67	72	24
Dissatisfied	14	9.33	12	8.00	26	8.67
Fully dissatisfied	6	4	2	1.33	8	2.67

FIGURE 14-GRAPH NO. : 4.8
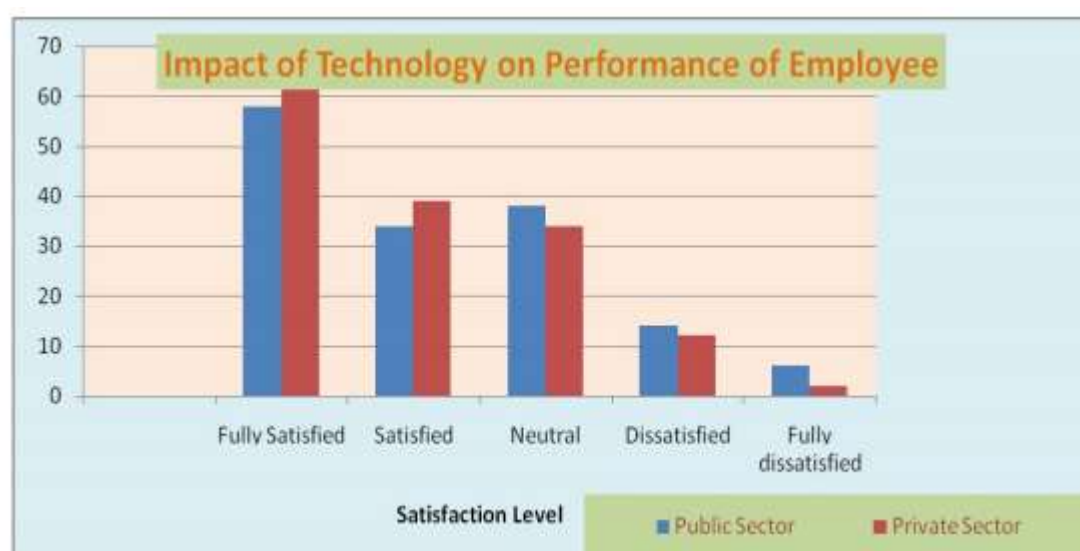
(H0): THERE IS NO SIGNIFICANT DIFFERENCE IN THE CUSTOMER SATISFACTION TOWARDS EMPLOYEE PERFORMANCE BETWEEN PUBLIC AND PRIVATESECTOR BANKS AFTERIMPLEMENTATION OF VARIOUS TECHNOLOGIES.

Satisfaction level	Public Sector		Private Sector	
	O	E	O	E

Fully Satisfied	58	60.5	63	60.5
Satisfied	34	36.5	39	36.5
Neutral	38	36	34	36
Dissatisfied	14	13	12	13
Fully dissatisfied	6	4	2	4
$(O-E)^2/E=0.925$				

For 4 degrees of freedom, the critical value of Chi-square at the 5 percent significance stage is 9.488, which is more than the researcher's estimated statistical value. A null hypothesis is thus accepted. It demonstrates that consumers are equally pleased with the success of workers from all industries and exercises in technology that have a direct effect on employee performance.

4.9 CUSTOMER'S SATISFACTION ON LOCATIONS OF BANK ATM

TABLE NO. : 4.9

Bank	Public		Private		Total	Percentage
Rating	Value	%	Value	%		
Fully satisfied	18	12	17	11.33	35	12
Satisfied	63	42	57	38	120	40

Neutral	27	18	32	21.33	59	20
Dissatisfied	14	9.33	18	12	32	11
Fully dissatisfied	28	18.67	26	17.33	54	18

FIGURE 15-GRAPH NO.-4.9

Just 12% of users are completely satisfied, according to the report, while 40 percent of users are satisfied with ATM locations. 29 percent, on the other hand, are unhappy and facing difficulties. Of these, 18% of clients are absolutely unhappy. In order to instal ATMs on new sites found by customers, banks should pay attention.

H0: CUSTOMERS OF BOTH SECTORS ARE EQUALLY SATISFIED WITH LOCATIONS OF ATMS OF THEIR ACCOUNTS.

SATISFACTION LEVEL	PUBLIC SECTOR		PRIVATE SECTOR		$(O-E)^2/E$	
	O	E	O	E	PUBLIC	PRIVATE

Fully Satisfied	18	17.5	17	17.5	0.007	.007
Satisfied	63	60	57	60	0.075	.075
Neutral	27	29.5	32	29.5	0.106	0.106
Dissatisfied	14	16	18	16	0.125	0.125
Fully Dissatisfied	28	27	26	27	0.018	0.018
Chi-square=1.326 (0.663 + 0.663)						

Table value of Chi-square for 4 degree of freedom at 5 % level of significance is 9.488. Decision: Since computed value of 2=1.326 less than the table value (9.488.). So ,null hypothesis is accepted and customers are equally satisfied with locations of ATMs. Its mean, ATMs are available on prominent locations of their society. It is so because banks are paying more attention towards the installation of more ATMs. Number of ATMs is rapidly growing by time. As on end of March 2015 the total number of ATMs is 181398 in the country; 25 this number was only 60,153 were on end march.

4.10 CUSTOMERS SATISFACTION TOWARDS CONNECTIVITY OF ATM

TABLE NO. : 4.10

Bank	**Public**		**Private**		**Total**	
Connectivity Rating	**Value**	**%**	**Value**	**%**	**Value**	**%**
Fully satisfied	4	2.67	5	3.33	9	3

Satisfied	16	10.67	17	11.33	33	11
Neutral	52	34.67	56	37.33	108	36
Dissatisfied	54	36	58	38.67	112	37.33
Fully dissatisfied	14	9.33	14	9.33	28	9.33

FIGURE 16-GRAPH NO. : 4.10
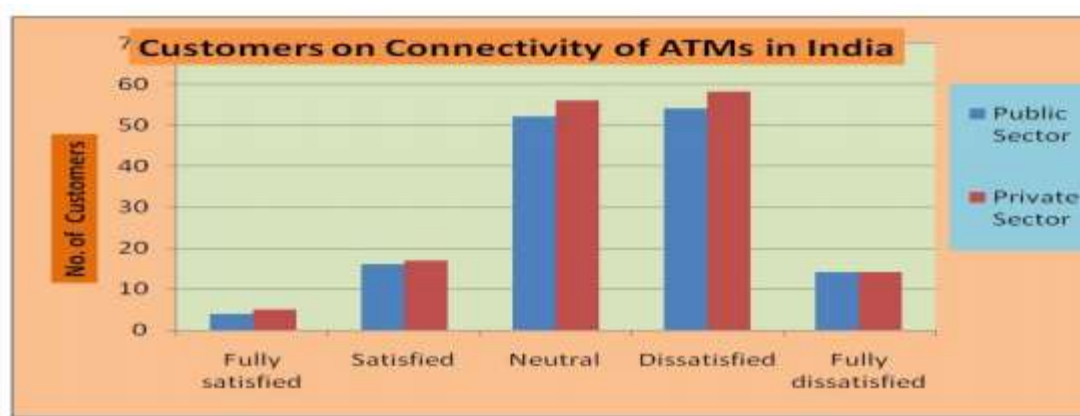
The principle prerequisite of e-banking is efficient network connectivity. ATM transactions are fully connectivity-based. The findings with respect to network access, however, are far from satisfactory. Only 3% of ATM users are completely pleased with ATM network access, and 73% of users are either neutral or dissatisfied. The message written on the ATM display screen is always considered to be

This issue must be seriously addressed by both the government of India and the banking industry.

4.11 CUSTOMERS SATISFACTION FOR SAFETY OF ATMs

TABLE NO. : 4.11

Bank	Public		Private		Total	
Safety Rating	Value	%	Value	%	Value	%
Fully satisfied	6	4	8	5.33	14	4.67
Satisfied	18	12	22	14.67	40	13.33
Neutral	54	36	57	38	111	37
Dissatisfied	48	32	48	32	96	32
Fully dissatisfied	24	16	15	10	39	13

FIGURE 17-GRAPH NO. : 4.11
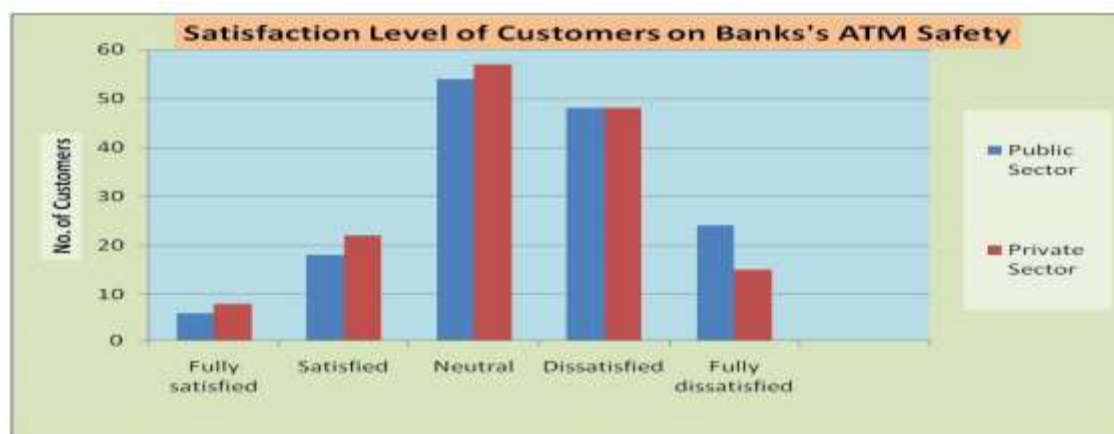
Protection, as already mentioned, is a major challenge for banks. The RBI and the government of India are taking a significant number of steps in this direction. Even so, the majority of consumers are either neutral or disappointed (69 percent). The numbers speak for themselves. Only 13% are completely pleased. A good approach could be to ensure the usability of the trick.

A central area of every service provider is customer satisfaction. Your services would attract more and more clients if the client is happy without spending much on ads, etc.

4.12 STUDY OF CUSTOMER'S SATISFACTION TOWARDS VARIOUS SERVICES OF ATMS

Customer satisfaction is a key area of any service provider. If customer is satisfied your services will attract more and more customers without spending much on advertisement etc.

TABLE NO. : 4.12

STUDY OF CUSTOMER'S SATISFACTION TOWARDS VARIOUS SERVICES OF ATMs

(Five Point Scale: Fully satisfied-1, Satisfied-2, Neutral-3, Dissatisfied-4 andFully dissatisfied-5)

ATM Service	Public					Private					Total
Rank	1	2	3	4	5	1	2	3	4	5	
Cash Withdrawal	55	48	24	12	11	52	43	29	14	12	300
Balance Enquiry	58	52	26	10	4	53	48	37	9	3	300
Money transfer	18	48	41	21	22	24	41	51	18	16	300
Mobile Recharge	21	30	39	24	36	26	32	43	23	26	300
Bills Payment	19	47	45	11	28	32	51	46	8	13	300
Mini statement	54	50	28	12	6	50	48	28	16	8	300
Cheque Book	54	56	32	15	3	45	45	38	11	1	300

Request										
Online Shopping	24	39	37	19	31	28	42	38	18	24	300
Others Charity, Fuelling upvehicle etc.)	29	48	36	12	25	32	44	42	18	14	300

FIGURE 18-GRAPH NO 4.12
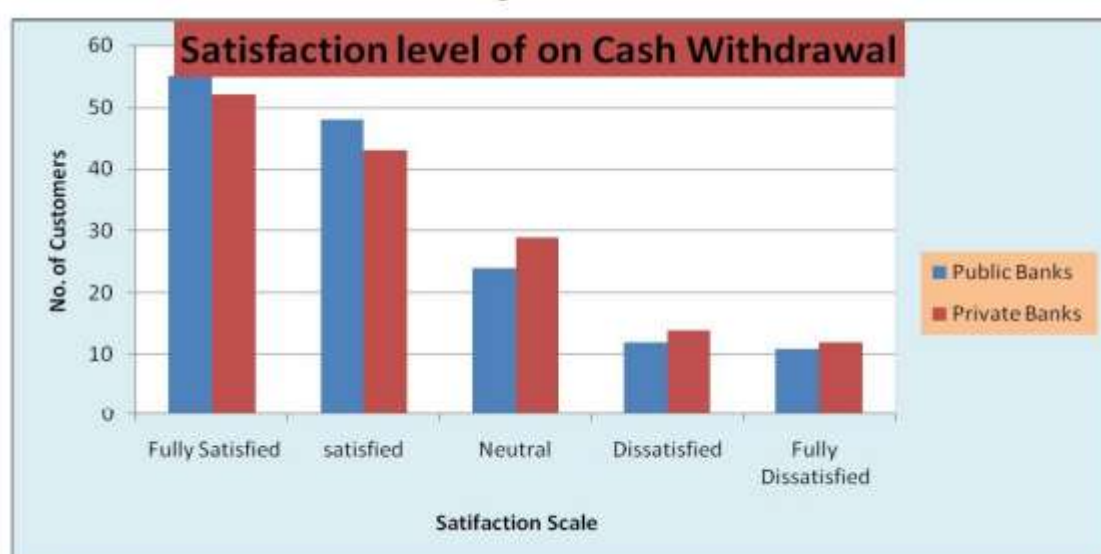
4.13   CUSTOMER'S   SATISFACTION   VIS-A-AS   ATMs   CASH WITHDRAWAL SERVICE

Of all ATM facilities, cash withdrawal is the main service. Research has attempted to determine the level of satisfaction of public and private sector bank customers with this main service.

TABLE NO. : 4.13

Analysis of Custom				
Bank	Public Banks		Private Banks	
Level of Satisfaction	Value	Percentage	Value	Percentage
Fully Satisfied	55	36.67	52	34.67
Satisfied	48	32	43	28.67
Neutral	24	16	29	19.33
Dissatisfied	12	8	14	9.33
Fully Dissatisfied	11	7.33	12	8

FIGURE 19-GRAPH NO. : 4.13

63.67 percent of clients in public sector banks are either completely satisfied or satisfied, but 63.33 percent of clients are satisfied in private sector banks, on the other hand. It is very important to remember that the percentage of dissatisfied or fully dissatisfied clients in the public sector is very low at 15 percent and in private sector banks at 17.33 percent. For public sector banks, consumers are more happy.

4.14 CUSTOMERS SATISFACTION VIS-A-VIS BALANCE ENQUIRY SERVICE OF ATM

The Balance Enquiry Service is also a very big ATM banking service. This service is also used by all customers. The table below shows that the highest number of customers for both types of banks is in the group of happy customers. Just 8.67% of customers are unhappy and 24.33% of customers are neither pleased nor unhappy.

TABLE NO. : 4.14

Bank	Public Banks		Private Banks		Total	
Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	58	38.67	53	35.33	111	37
Satisfied	52	34.67	48	32.00	100	33.33
Neutral	36	24.00	37	24.67	73	24.33
Dissatisfied	10	6.67	9	6.00	19	6.33
Fully Dissatisfied	4	2.67	3	2.00	7	2.33

FIGURE 20-GRAPH NO. : 4.14

Satisfaction level of customers on Balance Enquiry

As per the above graph, a big part of customers in both sectors aresatisfied with this type of service.

4.15 CUSTOMERS SATISFACTION VIS-A-VIS MONEY TRANSFER FUNCTION OF ATM

Another useful service, particularly for service class individuals, is the ATM money transfer feature since they are busy during the week and cannot regularly approach the branch for money transfer. In their off duty hours, they might be using this service. Banks offer this service in different ways, such as card to card transfer, account to account transfer, etc. The following table shows the level of customer satisfaction with this service.

TABLE NO. : 4.15

Satisfaction Level of Customers on Money Transfer Function of ATM				
	Public Banks		Private Banks	
Level of Satisfaction	Value	Percentage	Value	Percentage
Fully Satisfied	18	12	24	16

131

satisfied	48	32	41	27.33
Neutral	41	27.33	51	34
Dissatisfied	21	14	18	12
Fully Dissatisfied	22	14.67	16	10.67

FIGURE 21-GRAPH NO. : 4.15

As seen in graph 59.33 percent above, the highest number of customers is in these categories as 61.33 percent of private sector banks' customers come under these categories. 28.67 percent of public sector bank clients are either dissatisfied or fully dissatisfied with this service, while this figure is 22.66 percent in private sector banks. 44 percent of fully pleased and satisfied clients are in the public sector and 43.33 percent are in the private sector. Customers of both markets are nearly similarly pleased.

4.16 CUSTOMERS SATISFACTION VIS-A-VIS MOBILE RECHARGE SERVICE OF ATM

Customers of both banks usually use this ATM facility. The number of totally dissatisfied customers is more than fully satisfied customers, according to a survey of 300 customers. The scenario deserves consideration.

TABLE NO. : 4.16

Satisfaction Level of Customers on Mobile Recharge						
Bank	Public Banks		Private Banks		Total	
Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	21	14	26	17.33	47	15.67
Satisfied	30	20	32	21.33	62	20.67
Neutral	39	24	43	28.67	82	27.33
Dissatisfied	24	16	23	15.33	47	15.67
Fully Dissatisfied	36	24	26	17.33	72	24

If we ignite the public sector, but the situation is just the opposite in the private sector; the sum of happiness is more than that of discontent. 27.33 per cent of consumers are neutral in both industries.

FIGURE 22- GRAPH NO. : 4.16

Satisfaction Level of Customers on Mobile Recharge Function of ATM
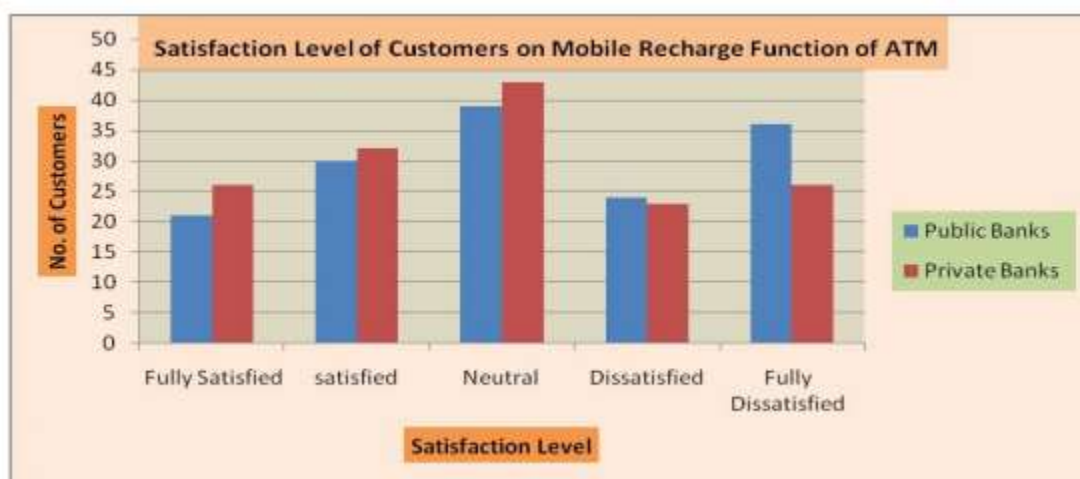
The above graph shows that the private sector is ahead of the public sector in the first three categories, but the public sector is leading in the last two categories. This indicates that consumers are more pleased with the private sector than with the public sector with regard to these services.

4.17 CUSTOMERS SATISFACTION VIS-A-VIS BILLS PAYMENT THROUGH ATM

With the help of ATM banking, a client has to pay different bills. The following table & graph shows the satisfaction pattern of 300 clients of public and private sector banks regarding the payment of bills via ATM in our survey.

TABLE NO. : 4.17

Satisfaction Level of Customers on Bills Payment						
Bank	Public Banks		Private Banks		Total	
Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	19	12.67	32	21.33	51	17.00
Satisfied	47	31.33	51	34.00	58	32.67

Neutral	45	30.00	46	30.67	91	30.33
Dissatisfied	11	7.33	8	5.33	19	6.33
Fully Dissatisfied	28	18.67	13	8.67	41	13.67

FIGURE 23-GRAPH NO.- 4.17
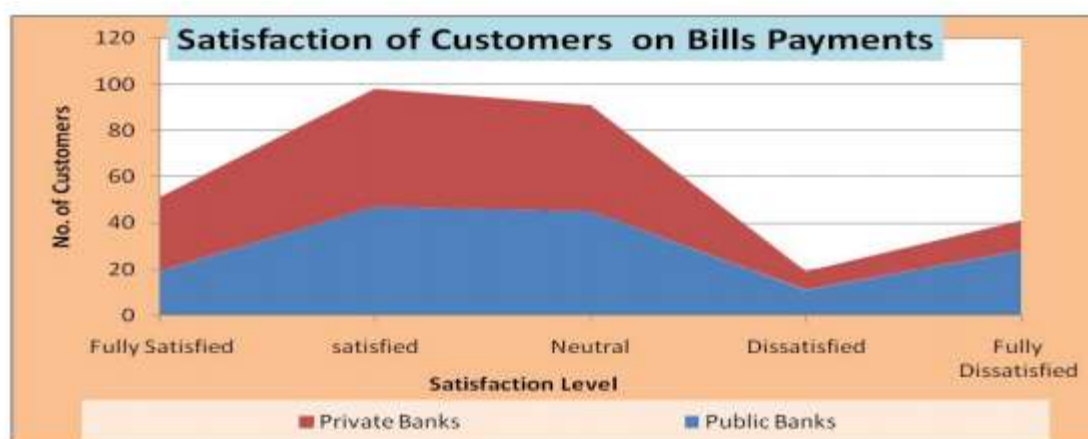
Clearly, the maximum number of clients in both sectors is neutral and completely pleased with the payment of bills through ATM. However, in this respect, a few clients in both sectors are facing major problems. In public sector banks, 26 percent of respondents are absolutely dissatisfied or dissatisfied, while in private sector banks, the figure is almost half. It suggests that private sector banks' customers are comparatively more pleased.

4.18 CUSTOMERS SATISFACTION VIS-A-VIS MINI STATEMENT SERVICES OF ATM

TABLE NO. : 4.18

Satisfaction Level of Customers on Mini Statement			
Bank	Public Banks	Private Banks	Total

Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	54	36	50	33.33	104	34.67
Satisfied	50	33.33	48	32.00	98	32.67
Neutral	28	18.67	28	18.67	56	18.67
Dissatisfied	12	8.00	16	10.67	24	9.33
Fully Dissatisfied	6	4.00	8	5.33	18	4.67

FIGURE 24-GRAPH NO. : 4.18

Satisfaction level of Cutomers on Mini Statement
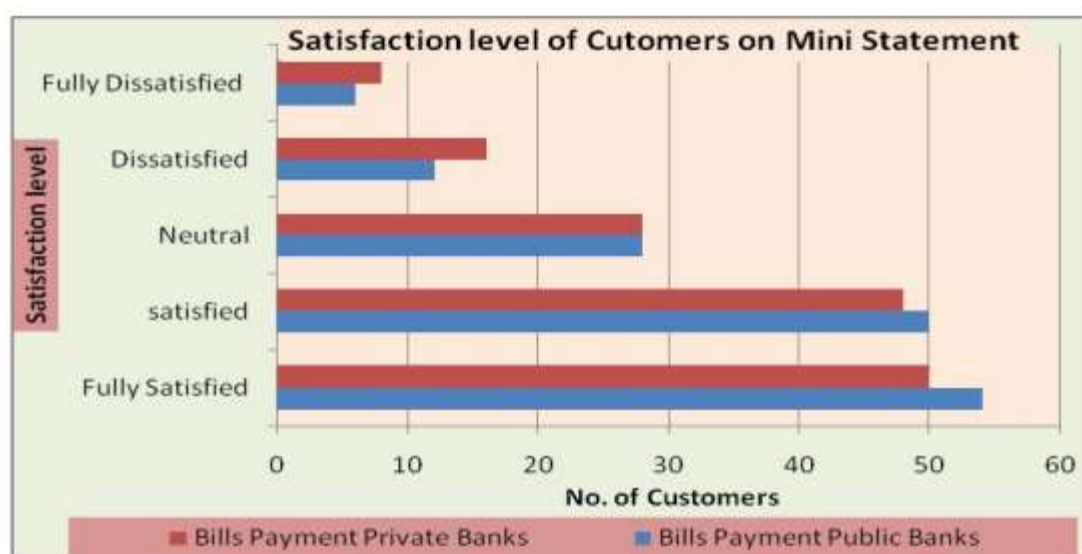
Customers typically use the Mini statement to analyze some of their accounts' past transactions. This service is provided by all ATMs. Our public and private sector bank customer survey shows that most customers are happy with this service, but sometimes they face connectivity or printing problems because they are unable to review their accounts via mini statement. As seen in the above graph, a great number of clients are absolutely satisfied. Just 14 percent of consumers are neutral, and over 60 percent are satisfied or completely satisfied in both industries.

4.19 CUSTOMERS SATISFACTION VIS-A-VIS CHEQUE BOOK REQUEST FUNCTION OF ATM

Requests for cheque books can also be made via ATMs. But it is shown that the majority of clients apply to branch banking for a cheque book. Nowadays, for this reason, banks have a particular format.

TABLE NO. : 4.19

Satisfaction Level of Customers on Cheque Book Request						
Bank	Public Banks		Private Banks		Total	
Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	54	36	55	36.67	109	36.33
Satisfied	56	37.33	45	30	101	33.67
Neutral	32	21.33	38	25.33	70	23.33
Dissatisfied	15	10.00	11	7.33	26	8.67
Fully Dissatisfied	3	2.00	1	0.67	4	1.33

There is no substantial difference in customer satisfaction if we compare the percentage of customers of public and private sector banks in the form of cheque book requests, as the percentage of completely satisfied and satisfied customers is very similar to each other.

FIGURE 25-GRAPH NO. - 4.19

Satisfaction Level on Cheque Book Request
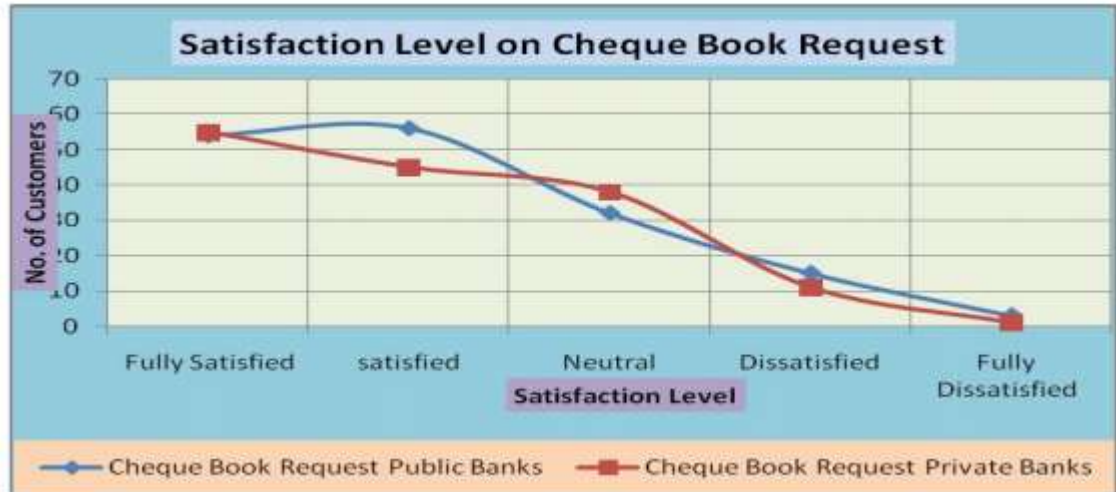
Quite close. Customers prefer ATM transaction instead of visiting the branch for thesame transaction.

4.20 CUSTOMERS SATISFACTION VIS-A-VIS ONLINE SHOPPING

Day by day, the trend of online shopping is growing and clients use their ATMs for this reason. Internet shopping refers to purchasing online products and services. It is very common among several payment methods of online shopping payment through ATM.

TABLE NO.-4.20

Satisfaction Level of Customers on line Shopping						
Bank	Public Banks		Private Banks		Total	
Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	24	16	28	18.67	52	17.33
Satisfied	39	26	42	28	81	27

Neutral	37	24.67	38	25.33	75	25
Dissatisfied	19	12.67	18	12	37	12.33
Fully Dissatisfied	31	20.67	24	16	55	18.33

FIGURE 26-GRAPH NO. : 4.20

The above table and graph show that in both sectors, the overall percentage of fully satisfied & satisfied customers is higher than that of the absolutely dissatisfied & dissatisfied. Satisfied and fully satisfied customers in public sector banks are 42 percent, but this percentage is 46 percent in the private sector. The percentage of dissatisfied and totally dissatisfied customers in the public sector is 33.33 percent and this category records 30.67 percent in private sector banks. Customers are almost similarly distributed in all categories of public and private satisfaction.

4.21 CUSTOMERS SATISFACTION VIS-A-VIS OTHER FUNCTION OF ATM

ATM cards have become a very useful method for financial transactions in the new banking scenario and the busy consumer lifestyle. This method is commonly used for various purposes, such as charity, car fueling, donation.

TABLE NO.-4.21

Others Functions (Charity, Fuelling up vehicle etc.) Satisfaction Levels						
Bank	Public Banks		Private Banks		Total	
Level of Satisfaction	Value	%	Value	%	Value	%
Fully Satisfied	29	19.33	32	21.33	61	20.33
Satisfied	48	32.00	44	29.33	92	30.67
Neutral	36	24.00	42	28.00	78	26
Dissatisfied	12	8.00	18	12.00	30	10
Fully Dissatisfied	25	16.67	14	9.33	39	13

FIGURE 27-GRAPH NO. - 4.21

Satisfaction of Cusomers on other Functions

—◆— Others (Charity, Fuelling up vehicle etc.) Public Banks
—■— Others (Charity, Fuelling up vehicle etc.) Private Banks

As is evident from the above table and graph, only a small percentage of clients in both sectors are dissatisfied. It is also possible to assume that consumers are satisfied with other ATM facilities. Graphical lines often refer to the proximity of banks in the public and private sector.

4.22 STUDY OF VARIOUS PROBLEMS FACED BY CUSTOMERS WHILE USING ATM

Customers of public and private sector banks have been found to face many unignorable problems, such as difficulty using ATM machines, connectivity, protection, non-printing statements, cash non-availability, etc. Look below at the sentence –

TABLE NO. : 4.22

Assessment of Various Problems Faced By Customers While Using ATM											
(Rating Scale: 1 Very Often, 2 Often, 3 Sometimes, 4 Rarely, 5 Never)											
Problem	Public					Private					Total
Rank	1	2	3	4	5	1	2	3	4	5	
Difficulty in Use of ATM	12	22	48	52	16	6	17	56	60	11	300

Connectivity While Using ATM	9	16	52	54	14	10	17	56	58	14	300
Limit of Cash Withdrawal	122	16	7	2	3	129	15	3	3	00	300
Non-Cash availability	9	31	15	69	26	11	29	24	56	30	300
Crowd	56	48	28	14	4	42	36	32	28	12	300
Non- printing statements	8	29	21	69	23	9	24	32	59	26	300
Safety	6	18	54	48	24	8	22	57	48	15	300

4.23 ASSESSMENT OF PROBLEM DIFICULTY IN USE OF ATM MACHINE

For those individuals who are either illiterate or less qualified, the ATM is still hard to use. They normally take advantage of other people and get robbed occasionally.

TABLE NO.-4.23

Assessment of Problem Difficulty in Use of ATM Machine				
Bank	Public Banks		Private Banks	
Degree of Problem	Value	Percentage	Value	Percentage
Very Often	12	8	6	4
Often	22	14.67	17	11.33

Sometimes	48	32	56	37.33
Rarely	52	34.67	60	40.00
Never	16	10.67	11	7.33

FIGURE 28-GRAPH NO. : 4.23
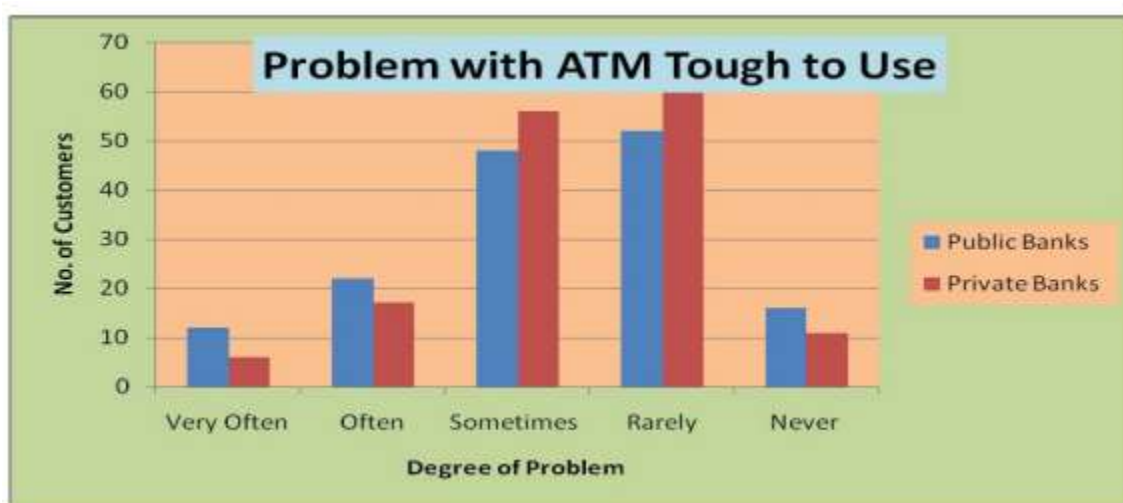
As per our report, 45.33 percent of public-sector customers and 47.33 percent of private-sector banks belonged to the group that was never and rarely faced. Therefore, the use of the ATM machine does not seem a major problem since 70 percent of our survey respondents are extensively (i.e. 12th +) educated.

4.24 ASSESSMENT OF PROBLEM OF CONNECTIVITY

Connectivity is also a major problem faced not only by ATM customers in India, but also in most developed nations around the world. The fundamental issue of developing nations such as India is poor basic infrastructure. Owing to the lack of access, consumers are not able to use their ATMs in urgent and emergency situations. However, in the recent past, there has been a great deal of change in this direction, as demonstrated by customer responses (vide table 4.24).

TABLE NO. : 4.24 ASSESSMENT OF PROBLEM OF CONNECTIVITY

Bank	Public Banks		Private Banks	
Degree of Problem	Value	Percentage	Value	Percentage
Very Often	4	2.67	5	3.33
Often	16	10.67	17	11.33
Sometimes	52	34.67	56	37.33
Rarely	54	36.00	58	38.67
Never	14	9.33	14	9.33

FIGURE 29-GRAPH NO. : 4.24
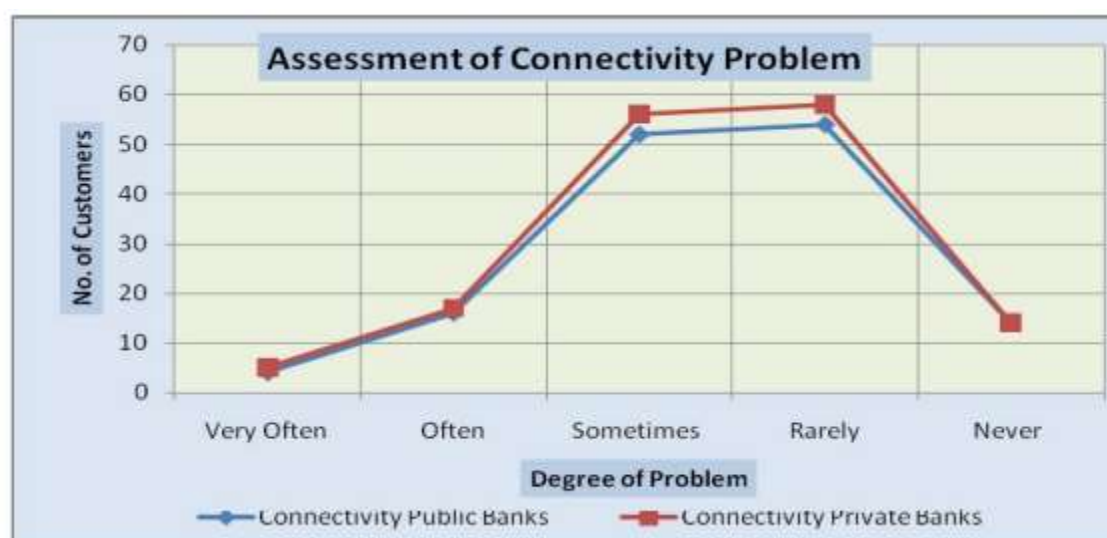
The majority of customers 38.67 percentrarely face communication issues, while 37.33 percent of customers admit that they face this issue often. It should not be overlooked that networking issues are faced by customers and it is almost identical in both sectors.

4.25 ASSESSMENT OF THE PROBLEM OF LIMIT OF CASHWITHDRAWAL

Banks must follow RBI-framed policies. The RBI decides the limit of cash withdrawal on a specific account. These directives have to be followed by banks and clients. Often, when they need more money but are unable to withdraw from their account, consumers face considerable difficulties in this respect.

TABLE NO. : 4.25

Assessment of Problem of Limit of Cash Withdrawal				
Bank	Public Banks		Private Banks	
Degree of Problem	Value	Percentage	Value	Percentage
Very Often	122	81.33	129	86
Often	16	10.67	15	10
Sometimes	7	4.67	3	2.00
Rarely	2	1.33	3	2.00
Never	3	2.00	0	00

FIGURE 30-GRAPH NO. : 4.25
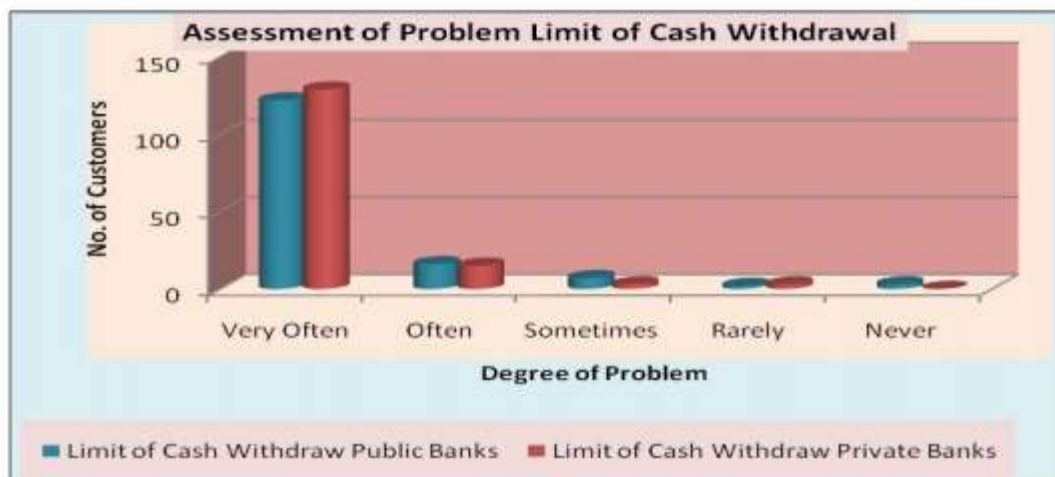
As per the above graph, an average of 94 percent of customers face this problem often or very often in their everyday lives. So, on multiple accounts, RBI could raise the cash withdrawal cap.

4.26 ASSESSMENT OF PROBLEM NON-CASH AVAILABILITY

The most known concern facing clients of both public and private banks is the non-cash availability of ATMs.

TABLE NO. : 4.26

Assessment of Problem Non-Cash Availability				
Bank	Public Banks		Private Banks	
Degree of Problem	Value	Percentage	Value	Percentage
Very Often	9	6	11	7.33
Often	31	20.7	29	19.33

Sometimes	15	10.00	24	16.00
Rarely	69	46.00	56	37.33
Never	26	17.33	30	20.00

FIGURE 31-GRAPH NO.- 4.26

The above table and graph confirm that this issue is never faced by 17.33% of public sector bank customers and 20% of private sector banks. This dilemma is rarely encountered by the full number of clients. Often or very often, only 26 percent of both sectors face this problem. Most clients are happy with the cash availability of ATMs, as per our survey.

4.27 ASSESSMENT OF CROWD PROBLEM AT ATMs SITE

India is the second most populated nation in the world, so there is an unavoidable issue of crowds. A comma sight is particularly in large cities for customers standing in a queue in front of ATMs and waiting for their turn.

TABLE NO. : 4.27

Assessment of Crowd Problem				
Bank	Public Banks		Private Banks	
Degree of Problem	Value	Percentage	Value	Percentage
Very Often	56	37.33	42	28
Often	48	32.00	36	24
Sometimes	28	18.67	32	21.33
Rarely	14	9.33	28	18.67
Never	4	2.67	12	8

FIGURE 32-GRAPH NO.- 4.27
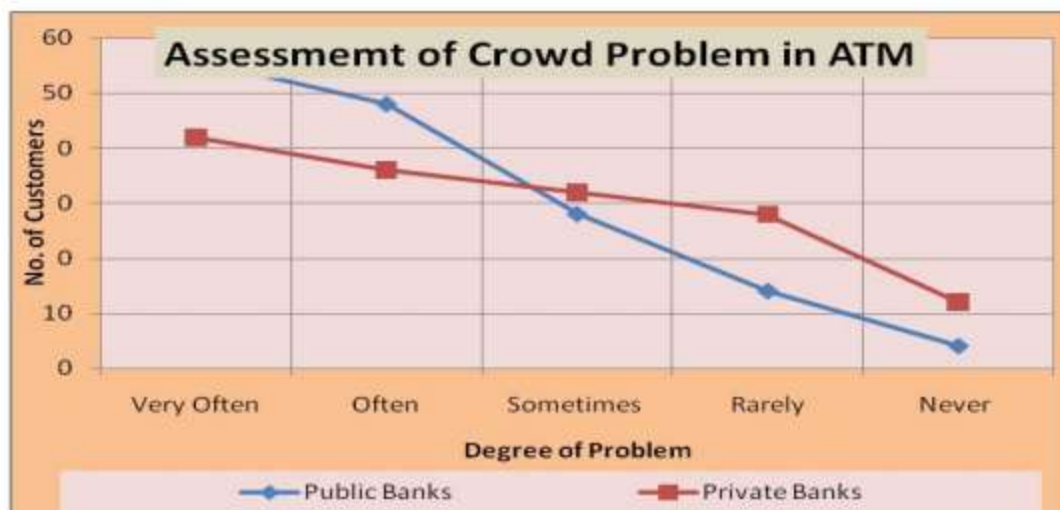
Most consumers face this issue very often or regularly. In public sector banks, 69.33% and in private sector banks, 52% of customers very much or regularly experience crowd problems. This is a very serious problem and a plan should be developed by banks to deal with this problem.

4.28 ASSESSMENT OF THE PROBLEM OF NON-PRINTING STATEMENT

Customers normally face this issue when printing mini declarations, balance inquiries after withdrawal, etc.

TABLE NO. : 4.28

Assessment of the Problem Non- Printing Statement						
Bank	Public Banks		Private Banks		Total	
Degree of Problem	Value	%	Value	%	Value	%
Very Often	8	5.33	9	6.00	17	5.67
Often	29	19.33	24	16.00	53	17.67
Sometimes	21	14.00	32	21.33	53	17.67
Rarely	69	46.00	59	39.33	128	42.67
Never	23	15.33	26	17.33	49	16.33

FIGURE 33-GRAPH NO. : 4.28

Assessment of Printing of Satement
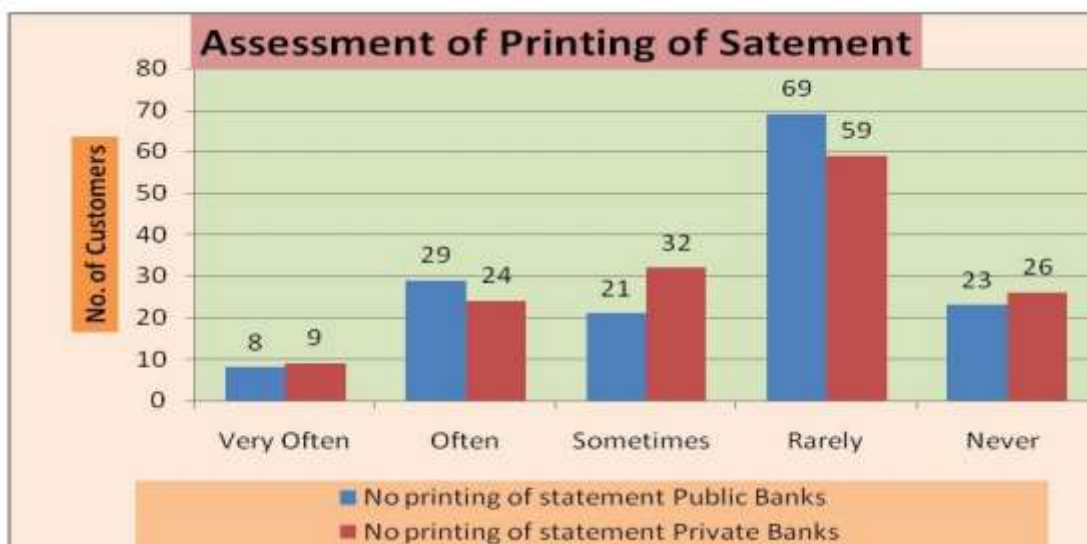
As seen in the above graph, the highest number of customers rarely face the problem of non-printing of statements. 61.33% of public sector customers and 56.37% of private sector banks never or rarely face the problem. However, 21% of private sector bank customers often face this issue, while this figure is 14% for public sector banks. Obviously, with regard to this operation, the public sector performs better than the private sector.

4.29 ASSESSMENT OF SAFETY PROBLEM

ATM, customer and their money security are major criteria of banking company performance. Both banks and the RBI are very serious about this issue. Respondent views can be described as under -

- This is a really serious issue.

- ATM fraud occurs every day.

- There is no fool-proof policy so far.

TABLE NO. : 4.29

Assessment Safety Problem						
Bank	Public Banks		Private Banks		Total	
Degree of Problem	Value	%	Value	%	Value	%
Very Often	6	4	8	5.33	14	4.67
Often	18	12	22	14.67	40	13.33
Sometimes	54	36	57	38	111	37
Rarely	48	32	48	32	96	32
Never	24	16	15	10	39	13

FIGURE 34-GRAPH NO. : 4.29

151
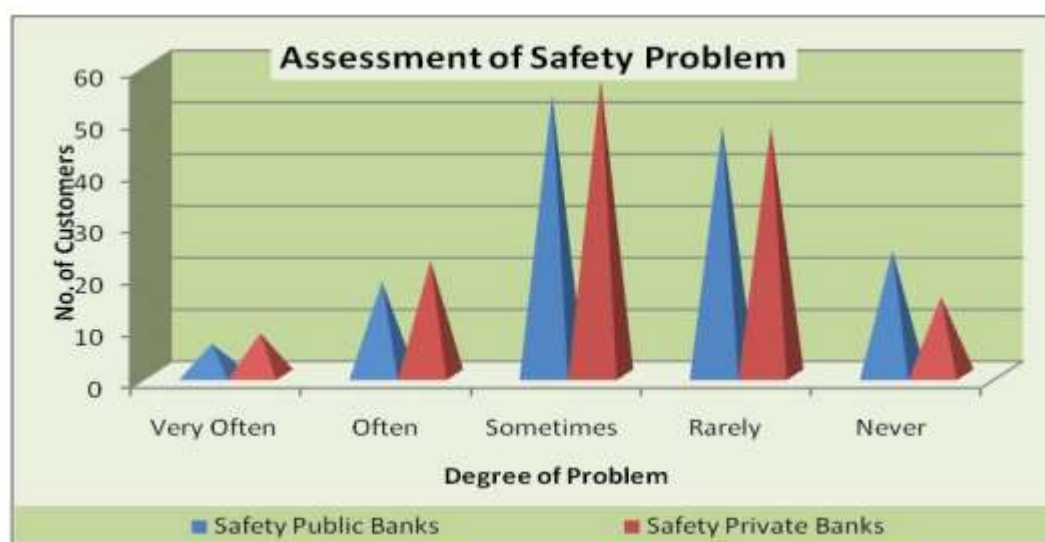
Although very few customers sometimes face this issue, 50 percent of customers in both sectors often and often face this problem. Secondly, the two sectors have never faced this problem. More than 50 percent of customers facing some kind of safety issue (sometimes/very often or sometimes) should not be overlooked and they need appropriate interventions.

4.30 STUDY OF OTHER ASPECTS

4.30.1 ATM CARDS HAVE MADE THE SERVICES EASY

TABLE NO. : 4.30

Public			Private			Total
Yes	NO	No Difference	Yes	NO	No Difference	
132	18	--	144	6	--	300
88%	12%	00%	98%	2%	00%	--

FIGURE 35-GRAPH NO.-4.30
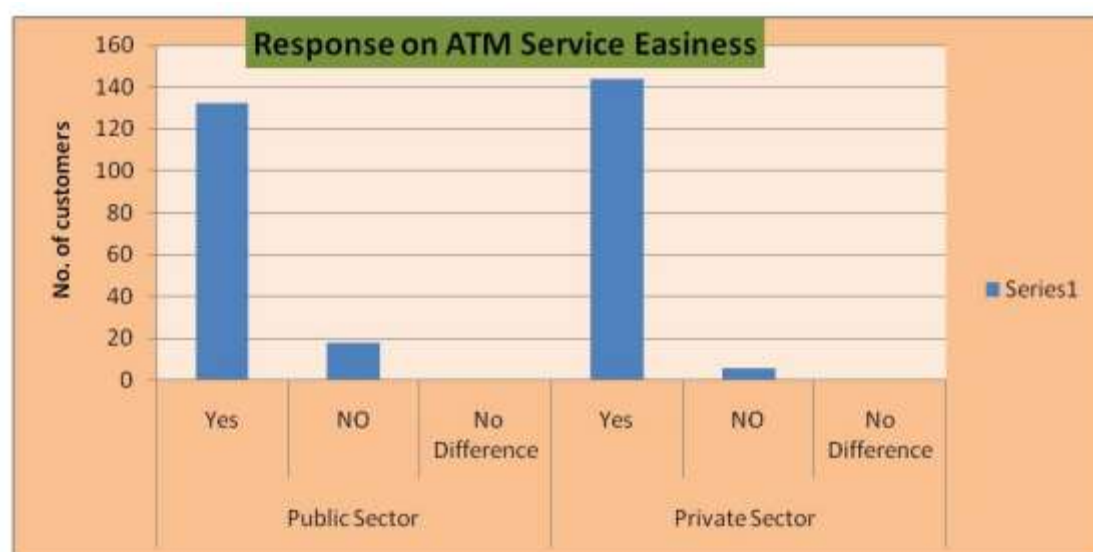
The researcher tried to understand whether or not ATM made banking services simpler for customers? As per the reaction of private and public sector bank respondents, most clients agree that ATM has made banking services very fast. 88 percent of customers in public sector banks and 96 percent of customers in private sector banks agree that ATM entry has made services very convenient.

Null Hypothesis (H_0): ATM Cards have made the services easier in private sectorthan in public sector.

	Public	Private	Total	$(O-E)^2/E$
Yes	132	144	276	0.522
No	18	6	24	6
Total	150	150	300	

The Chi-square table value is 3.841 at the 5 percent significance stage for degree of freedom 1, which is lower than the Chi-square measured value. The null hypothesis (H0) is also dismissed. As a result, we can assume that the incidence of easiness of ATM users does not vary substantially between the two industries.

4.31 ATM MEASURING MONEY

The ATM system has to calculate money being withdrawn by customers on any withdrawal money transaction. Customers in both sectors have experienced that they have earned more or less money than the ATM sum of their order. Researchers have made an attempt to understand the performance of the ATM machine. 300 customers of public and private sector banks were asked if the ATM machine gave the correct amount they entered.

TABLE NO. : 4.31

| ATM Machine Efficiency in Measuring Money								
Public				Private				Total
Yes		NO		Yes		NO		
Value	%	Value	%	Value	%	Value	%	
146	197.4	4	12.6	148	98.67	2	1.3	300

FIGURE 36-GRAPH NO. : 4.31
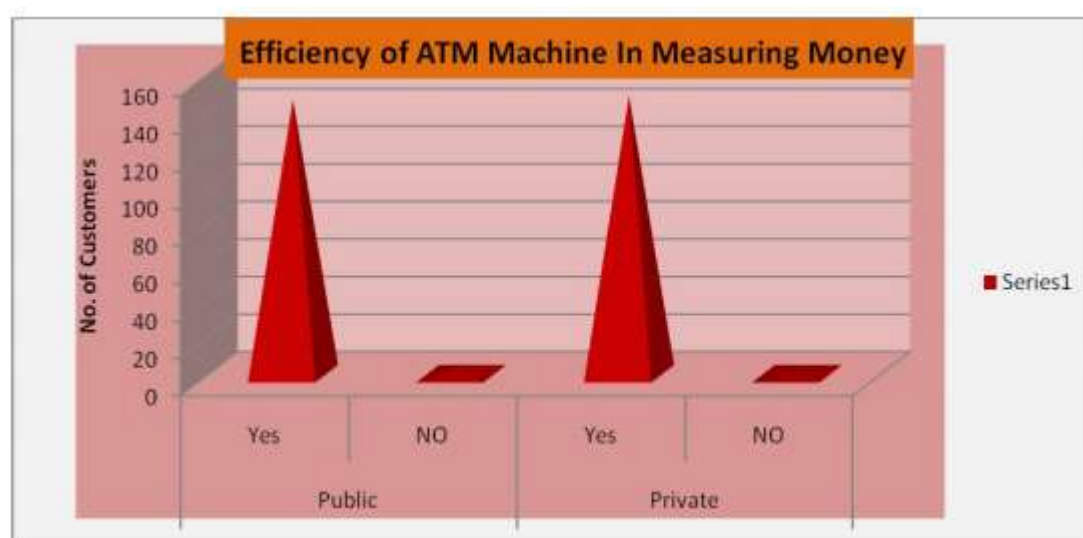
As shown, 97 percent of public sector bank customers believe that they have always received the right number, and 99 percent of private sector bank customers have reacted similarly. Only 4% of customers were found to be complaining.

4.32 BANKS ACTION AGAINST CUSTOMER'S COMPLAINTS

TABLE NO: 4.32

BANK'S ACTION AGAINST CUSTOMER'S COMPLAINTS								
Public				Private				Total
Yes		NO		Yes		NO		
Value	%	Value %		Value %		Value %		
144	96	6	4	146	97.33	4	2.67	300

FIGURE 37-GRAPH NO. : 4.32
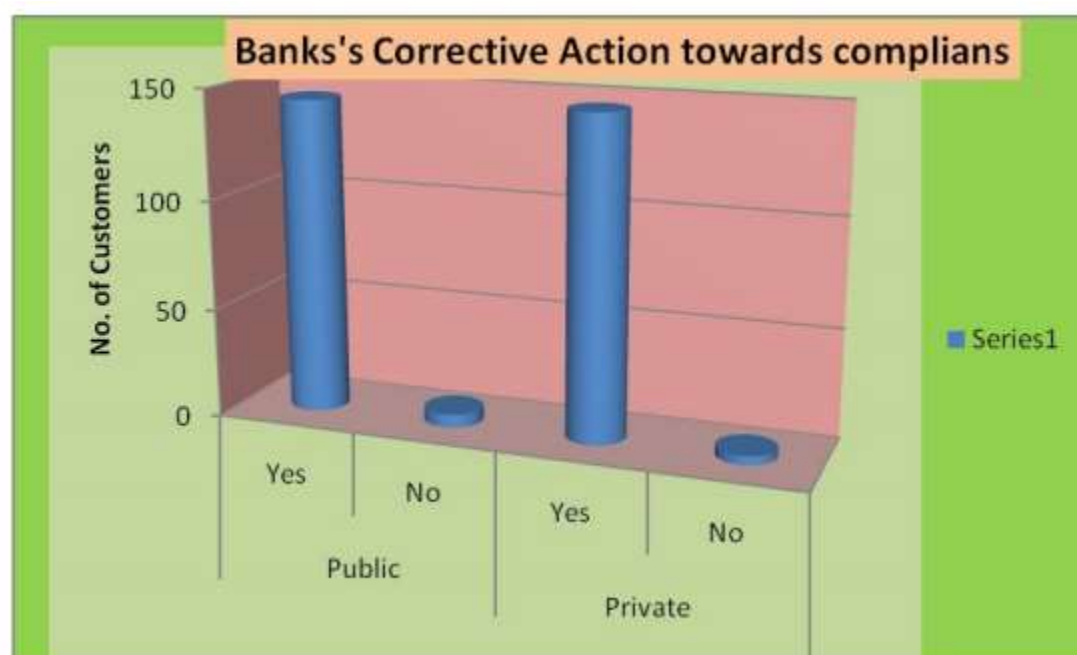
Bank customers face several problems when accessing accounts via ATMs. Banks have provided uniform requirements and time along with toll-free numbers to correct and settle consumer concerns. Most clients (96%) claim that banks are able to correct grievances within a given time frame.

4.33 PREFERENCE OF CUSTOMERS USING ATM MACHINE RATHER THAN GOING TO THE BRANCH

TABLE NO. : 4.33

| Public						Private					
Yes		No		Same Convent		Yes		No		Same Convent	
Value	%	Value	%	Value	%	Value	%	Value	%	Value	%
134	89.33	12	8	4	2.67	142	94.67	4	2.67	4	2.67

FIGURE 38-GRAPH NO. : 4.33

Visiting bank branches were used until the launch of ATM in Indian banking industry customers. But as of now, they have a choice of either visiting the bank branch or using the ATM for the same reason. Most customers in both sectors (especially in urban areas) prefer ATM transactions instead of visiting the branch in question.

4.34 STATUS OF CROWD ON BANK'S ATM

TABLE NO. : 4.34

STATUS OF CROWD ON BANK'S ATM						
Bank	Public		Private		Total	
Rating	Value	%	Value	%	Value	%
Always crowded	56	37.33	42	28	98	32.67
Mostly crowded	48	32	36	24	84	28
Sometimes crowded	28	18.67	32	21.33	60	20
Never crowded	18	12	40	26.67	58	19.33

FIGURE 39-GRAPH NO. : 4.34
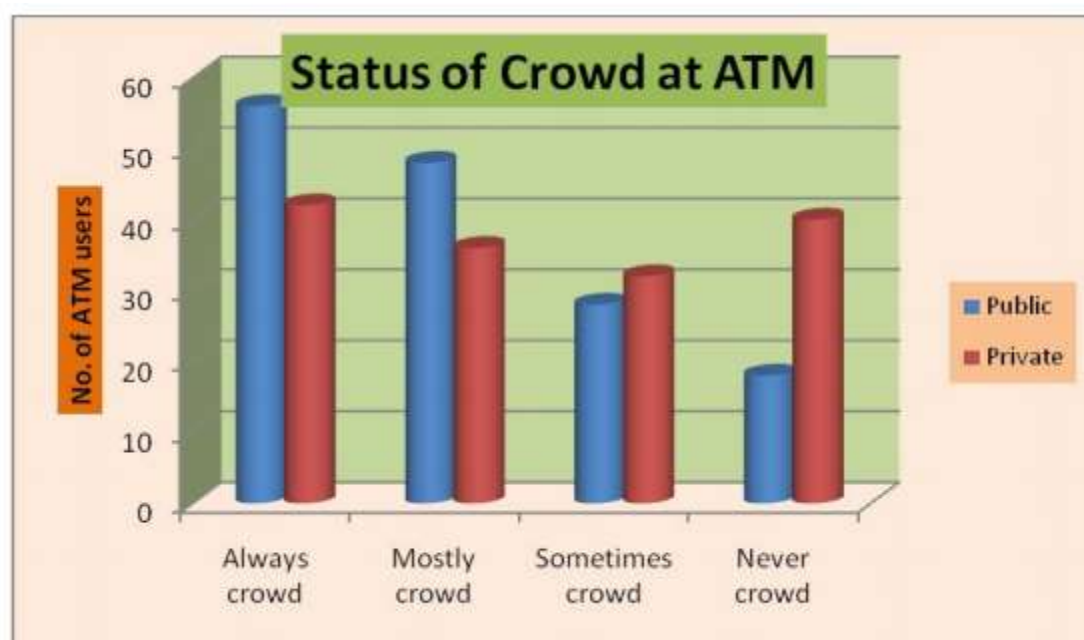
One of the frustrating issues found by the users of the ATM is overcrowding at the ATM location. However, only when people are waiting for their turn and standing in a line is this question more associated with public sector banks. In the public sector, only 12 percent of users never experience crowd issues, while the number of users in this group is 26 percent in the private sector.

4.35 CUSTOMERS PERCEPTION TOWARDS SECURITY OF ATM

Protection of the ATM before the Government of India and the banking industry. A significant number of frauds involving thousands of Crore Rupees have been committed in our country in recent years.

TABLE NO. : 4.35

Analysis of Customer Perception Towards Security Of ATM				
Security	Public	Private	Total	Percentage
Guard	17	20	37	13
CCTV	12	11	23	7
Both	121	119	240	80
None	0	0	0	00
Total	150	150	300	100

FIGURE 40-GRAPH NO. : 4.35
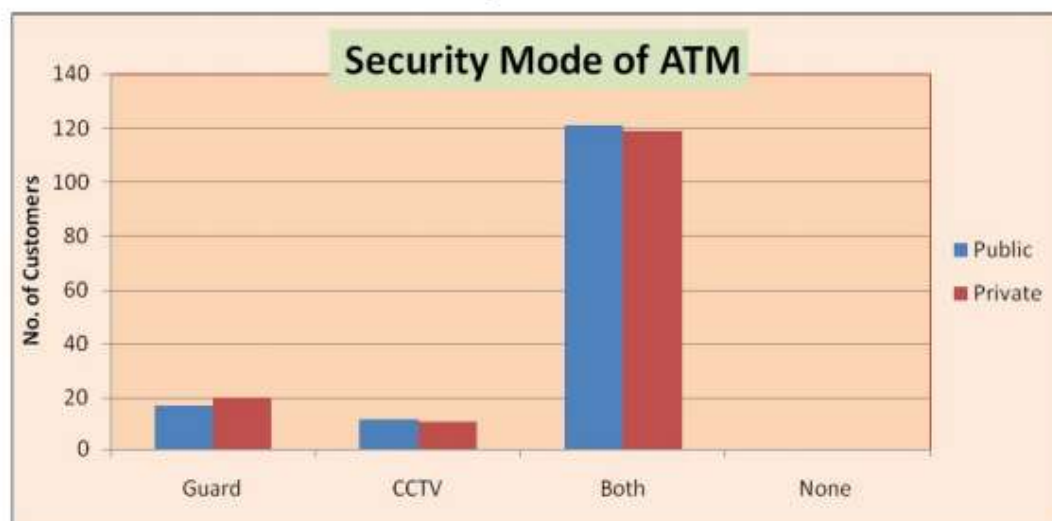
Both guard and CCTV camera should be given to secure customers, as per the opinion of respondents who are valued customers of public as well as private sector banks.

H0 (NULL HYPOTHESIS): THERE IS NO DIFFERENCE IN CUSTOMER PERCEPTION TOWARDSSECURITY MODES OF ATMs IN PUBLIC AND PRIVATE SECTOR BANKS.

Security/ Bank	Public Sector	Private Sector	Total	$(O-E)^2/E$
Guard	17	20	37	0.122 0.122
CCTV	12	11	33	1.23 1.83
Both	121	119	240	0.008

|				0.008
Total	150	150	300	=3.320

Table value of 5 percent importance of Chi-square for degree of freedom 2 is 7.824. A null hypothesis is thus accepted. It shows that the view of the customer in both sectors of ATM security is almost similar.

4.36 IMPACT OF ATM PROMPTNESS IN SERVICES TO CUSTOMERS

TABLE NO. : 4.36

Public Sector		Private Sector		Total
Yes	NO	Yes	NO	
134	16	145	5	300

FIGURE 41-GRAPH NO. : 4.36
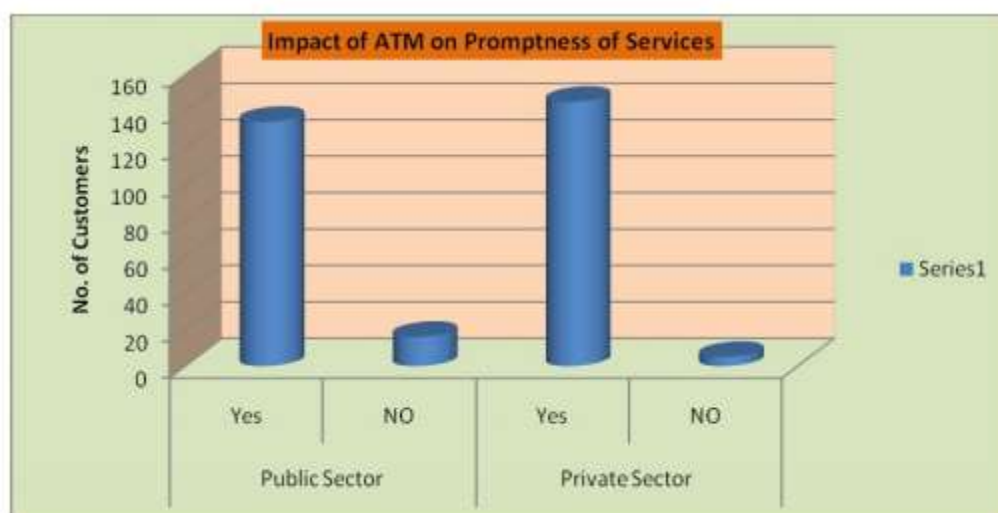
Users of both public and private sector banks accept that ATM has introduced pace into banking services on the issue of promptness. Also large numbers of transactions,

along with 24-hour banking service availability, are carried out within minutes. For both the banking industry and clients, ATM may also be viewed as a boon.

4.37 STUDY OF COST EFFECTIVENESS OF ATM

The current study aims to illustrate the scale of the migration of customers in India from branch banking to ATM banking. In general, more than 50 percent of a middle-class person's transactions are conducted via electronic mode; currently, in electronic mode, we process approximately 50 core transactions each year. The same applies to a drive to establish a more safe, secure and credit-push-based transfer route of funds that has gained considerable traction.

We also saw improvements in India's communication network and messaging system. The Institute for Banking Technology Development and Research (IDRBT), founded by the RBI in 1997, introduced the Indian Financial Network INFINET -the implementation of the Public Key Infrastructure (PKI)-based electronic data transfer with very high levels of security has been a notable achievement. The Institute has also developed a Standardized Financial Messaging System (SFMS) messaging standard with security features superior even to SWIFT (Society for Worldwide International Financial Telecommunications). In an attempt to have a state-of-the-art network, INFINET has moved to the new MPLS (Multi Protocol Label Switching) technology today.

Information technology and developments offer competitive opportunities to enhance the value of partnerships with consumers. They reduce the cost of financial transactions, boost the distribution of financial capital and increase financial institutions' productivity and performance. We can interpret this from the graph below
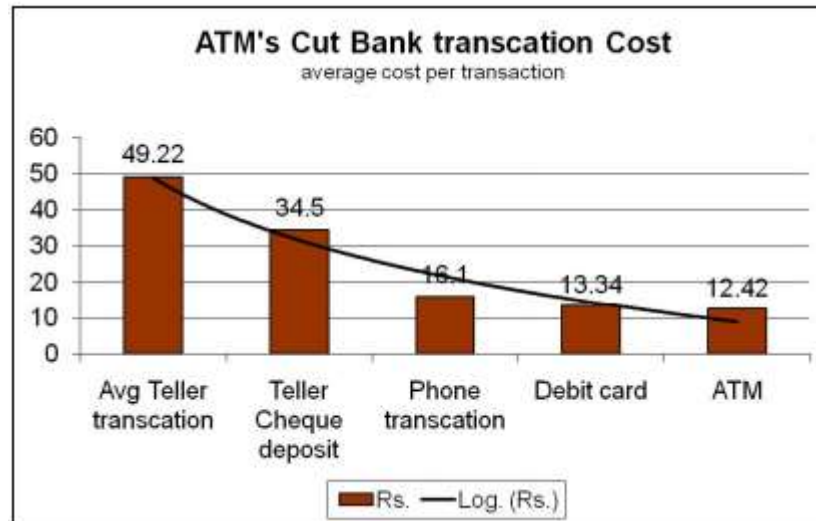
ATM's Cut Bank transcation Cost
average cost per transaction

FIGURE 42 –

*Source: www.banking.senate.gov/97-07hag/072997/charts/chart01

It is apparent from the above graph that transaction costs decrease as the use of technology increases. The manual transaction and an ATM transaction make a huge difference. If we equate the average transaction cost of the teller and the cost of the ATM transaction, we find that the transaction cost of the ATM is just 25% of the average transaction cost. It means it's much cheaper than the transaction with the teller. In other words, technology lowers costs per transaction.

4.38 ATM CRIME AND PROBLEM IN INDIA

Cash is nectar for hoodlums. They are overpoweringly pulled in towards it. Monetary wrongdoing in the course of the most recent 30 years has progressively been disturbing the psyche of states men and partners has gotten a matter of worry to governments all through the world. This worry emerges from an assortment of issues in light of the fact that the effect of monetary wrongdoing shifts in various settings. It is today broadly perceived that the predominance of financially inspired wrongdoing in numerous social orders is a generous danger to the improvement of economies and their solidness. Monetary foundations are endeavoring to battle monetary wrongdoing. Particularly banks driven by requests to secure their resources, just as by administrative consistence must be more mindful to the marvel of monetary wrongdoings.

These days banking rehearses are changing and improving for speedy and safe exchanges at least expense. Customer's access their ledgers through a plastic bankcard and this plastic card has become the foundation of retail banking across the world. This card has an attractive strip on the back containing a secret word and pertinent record data. ATM innovation has essentially continued as before throughout the most recent a very long while, with a couple of minor changes like shading contact touchy screens and voice-enacted orders for the outwardly hindered. However, various issues are being looked by the banks just as their clients. A review was directed in the private and public area banks and the outcomes showed up at have been examined in Chapter-4.

4.39 THEFT OF CUSTOMER'S CARD INFORMATION

ATMs are confronting a few issues, for example, Card Theft, Skimming Devices, PIN Security, and Shoulder Surfing, Utilizing a Fake PIN Pad Overlay, PIN Interception, Accessing the Cash, Application of a bogus ATM Presenter, Transaction Reversal and ATM Burglary Attacks. Customer's card data robbery happens when somebody utilizes someone else's very own data, for example, PIN number, Account number, Name, Security number, Credit card number or other distinguishing data to take on that individual's personality to perpetrate extortion or different wrongdoings.

The fundamental focal point of ATM wrongdoing is on the robbery of the information put away on the bank card. As of not long ago bank cards utilized an attractive stripe to store data to distinguish the client's record and PIN code to validation them and permit them to perform exchanges at an ATM anyplace whenever. Unfortunately the attractive stripe data is easy to duplicate and fake. Accordingly hoodlums have zeroed in on techniques for gathering this data. Part of such grumblings has been gotten by the banks and RBI. So far banks can't stop such sort of wrongdoing.

Robbery card data can be concentrated under the accompanying such heads –

4.40 CARD THEFT

With an end goal to acquire real cards, lawbreakers have utilized an assortment of card catching gadgets included thin mechanical gadgets, frequently encased in a

plastic straightforward film embedded into the card-peruser throat. Snares are joined to the tests keeping the card from being gotten back to the purchaser. ATM terminal client shows worry because of the caught card; the criminal typically in closeness of the ATM, will offer help. After the customer leaves the zone, accepting their card to have been caught by the ATM, the criminal will at that point utilize a test (fishing gadget) to extricate the card.

4.41 CARD TRAPPING

This is the point at which a card is actually caught by the ATM joined with quite a few techniques used to catch the client's PIN. At the point when the client's leave the ATM without their card, the card is recovered by the criminals and used to make fake money withdrawals or to make different buys (either coming up, phone, or on the web). Regularly just one card is lost in each assault. The lawbreakers need to eliminate the entire gadget each time a card is caught, albeit as of late a card catching gadget has been seen that can remain set up for a while and that permits evacuation of caught cards without the expulsion of the gadget.

4.42 ATM CARD EXCHANGE BY THIEF

In northern India, it is often found that many crimes have been committed by criminals by exchanging the account holder's ATM card. When a person faces a problem inside the ATM room, an unknown person offers him assistance, takes his ATM card, provides him with another ATM card, and steals his money after some time.

4.43 SKIMMING DEVICES

Another way of accessing the account information of a customer is to skim the data off his card. Skimming is the most commonly used way to access card track data illegally. Skimmers are machines used by criminals to collect the data contained in the card's magnetic strip. Through the application of small card readers in close proximity to or on top of the actual card reader input slot, it is possible to read and record the information stored on the magnetic track of the card to read and decode the information on the magnetic strips of the card. The computer is then disabled,

allowing stored data to be downloaded. Skimming machines can be smaller than a deck of cards and the way credit card scanners or ATMs read card information can read the magnetized strips on bank cards. Information can be captured; information, including account numbers, balances and authentication codes, can be stored from more than 200 cards. The user can be fooled into thinking that the device is part of the ATM device by these types of skimmers. "Small skimming devices (approximately 1.0 inches wide, 1.0 inches long) were prominently attached before performing a transaction with a sign instructing cardholders to swipe cards through the additional reader "for security purposes. Another known tactic is to depict the extra card reader as a card cleaner.

4.44 PIN SECURITY

The next move is to get the Personal Identification Number after the criminal has obtained the account information by either stealing the actual card or determining the account information from a skimming system and replicating the information on a counterfeit card (PIN). One of the most significant elements necessary to steal an ATM user's identity is the PIN. In one of the following ways, Customer PIN capture can be attempted: Shoulder Surfing, Fake PIN Pad Overlay, and PIN Interception.

Shoulder Surfing - It is the act of direct observation, watching the number on the keyboard that the individual clicks. Usually, the criminal places himself in close but not direct proximity to the ATM to watch covertly as the ATM user enters his PIN. Often, easily obtained miniature video cameras can be mounted discreetly on the fascia near the PIN pad to record the PIN entry details.

Utilizing a Fake PIN Pad Overlay - Over the original keypad, a fake PIN pad is mounted. The PIN data is collected by this overlay and the information is stored in its memory. After that, the fake PIN pad is erased and registered PINs are downloaded. In appearance and scale, fake PIN pads can be nearly the same as the original. A "thin" overlay that is invisible to the user is an additional form of overlay that is more difficult to detect. Not only is the PIN intercepted with this method, it also enables the transaction to continue in a normal way. This technique used in combination with card data theft provides the criminal with the details required to access the account of an unaware customer a criminal can often attach a portable monitor and card reader to

165

obtain the card and PIN information on top of the actual ATMs monitor and card reader. The false monitor and card reader record the account details and display a message at the ATM to an error state that results in a host processor reversal of the transaction due to the alleged failure to dispense cash when the cash is legally accessible or by coercion. An ATM user may request that Rs.10, 000 be withdrawn. However, the offenders can only carefully delete a portion of the notes from the presenter process when the note stack is presented. For eg, they delete Rs.6, 000 from the centre of the stack of notes, leaving the presenter with Rs.4, 000. Several seconds later, a "Time out on Withdrawal" occurs when the ATM times out and sends an error message to the financial institution, and the ATM retracts the banknotes left in the output slot, depending on the software programme, and deposits these banknotes into the dispenser retract bin. The dispenser is unable to count how many banknotes are retracted, and the distribution number is typically not debited to the Customer Account (depending on the host application).

PIN Interception - Another tricky way to cheat a customer is to steal. The information is collected in electronic format via an electronic data recorder after the PIN is entered. It is possible to catch the PIN either inside the terminal or when the PIN is transmitted for online PIN search to the host device. The suspect will need access to the communication cable of the PIN pad inside the terminal to catch the PIN internally, which can be accomplished more conveniently at off-site locations.

4.45 ACCESSING THE CASH

There are a range of tactics used to intercept or otherwise unlawfully procure dispensed currency by offenders, such as the implementation of a fake ATM presenter to redirect dispensed notes and Transaction Reversal. This fraud is carried out in front of the dispensing point by adding traps. The unit attached to the terminal covers the usual dispensing point or disguises it. Notes to the false front are dispensed by the ATM, they are never addressed to the customer, the customer erroneously believes that the terminal has failed, and leaves. The criminal returns after the customer leaves, drops the false front, and takes the money. The easiest approach is to use adhesive tape that blocks the cash dispenser and protects the banknotes delivered, preventing the retraction of notes. The use of motorized devices that move the transported

banknotes into dedicated bins internal to the system is a more highly sophisticated process, simulating a real withdrawal of banknotes.

4.46 LEAVING TRANSACTION LIVE

This occurs when, after the victim has left the ATM, a suspect completes an uncompleted transaction. This is normally achieved by making the victim think that when they are in the midst of a transaction, the ATM is out of order, or some other means of getting the victim away from the ATM while withdrawing funds.

4.47 CASH TRAPPING

When customers try to make a withdrawal, criminals fix a gadget to the cash-dispensing slot, causing notes to get trapped inside. The client leaves thinking the computer is out of order or goes inside the bank to report the incident and returns to recover the notes from the robbers.

4.48 ATM BURGLARY ATTACKS

Physical assaults are often attempted by mechanical or physical means on the safe inside the ATM. The objective is to reach the ATM to open the safe door or to create a sufficiently wide opening in the safe to extract the cash. There have been several well publicized incidents in which offenders have physically removed an ATM from its position by tying a chain to it and speeding off behind a pickup truck with the ATM.

ATM heists in India are not peculiar. In 2016, cyber criminals in more than a dozen countries across Europe targeted cash machines using malicious software that forces machines to spit out cash. J's biggest ATM manufacturers said that they were aware of the attacks and were working with clients to minimize the threat. The newly discovered heists across Europe follow hacks of widely publicized ATMs in Taiwan and Thailand. In one of the biggest digital heists on record, a February attack on servers at the Bangladesh central bank that controlled access to the SWIFT messaging system yielded more than $81 million. In a series of wire fraud cases that were found earlier this year, Radian banks lost over $ 28 million (2016).

4.49 COMPUTER NETWORK ATTACKS

All CBS (Core Banking Solution) banking, ATM banking, and e-banking transactions are carried out via the WWW route, i.e. the internet. The Internet is being targeted in different ways by criminals. Network Assault is one of them. The Internet offers access and communication world-wide. This allows each of us access to people across the globe. It also gives thieves access to networks and individuals. Cybercrime is the name of crimes that occur on computer networks. Cyber crime levels are rising day by day in India. Look at the following table-

4.50 TREND OF CYBER CRIME IN INDIA

TABLE NO. –4.50

Number Of Cyber Crime Cases Registered Under The IT Act		
Year	No Of Cyber Crime In India	Percentage Change
2008-09	288	-
2009-10	420	45.83
2010-11	966	130
2011-12	1791	85.40
2012-13	2130	18.93
2013-14	2636	23.75

Source: National Crime Record Bureau Annual report

FIGURE 43-GRAPH NO. : 4.50

Trend of Cyber Crime in India
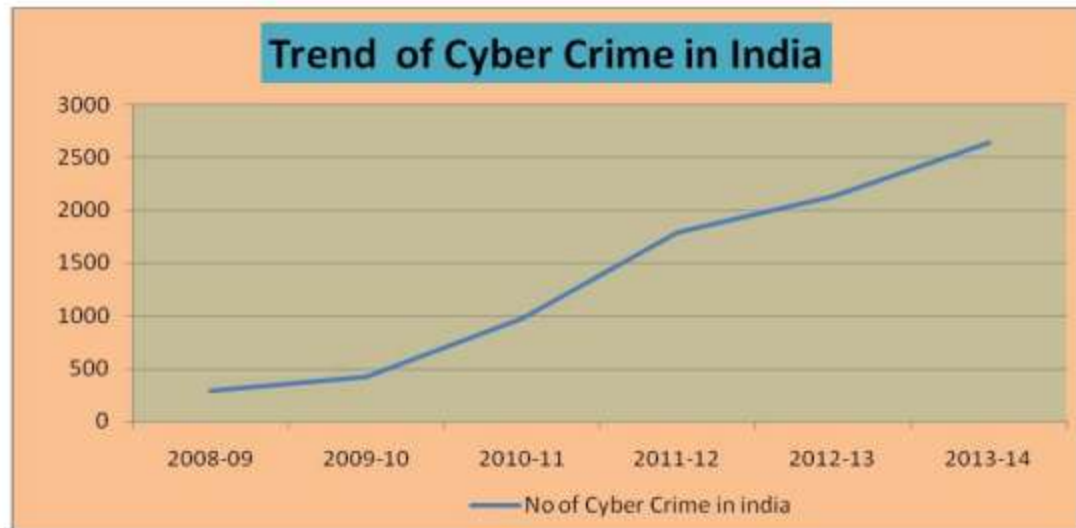
It is clear that in India, the amount of cyber crime is rising. New forms of cases are added to the cyber crime inventory every year. The graph also shows that a very dangerous sign for safe IT-based banking is upward progression. The total number of cyber crime cases in the year 2008 was 288, but this number multiplied more than 10 times in 2013, e.g. 2636.

There are various new kinds of cyber crimes or threats coming to light. Such threats include –

4.51 VIRUSES AND MALICIOUS SOFTWARE

ATMs now commonly use commercially accessible operating systems and hardware off the shelf and are likely to be infected with viruses and other malicious software as a result. By network attacks, or by other compromised computers, the malicious programmer is injected into the ATM. The malicious programmed can gather card information and PINs once it is installed on the ATM.

4.52 PHISHING

For several years, fraud and scams using mail communication have existed. This fraud has spread exponentially worldwide with the introduction of e-mail and the Internet and has gained the name Phishing. Phishing scams are designed to entice the user to supply their bank card with the card number and PIN. Thieves will send an e-mail

describing them as a bank and stating that account information is missing or that to avoid the account from being locked, the customer needs to change his account information. The client is asked to click on a connection and follow the instructions given. However, the connection is fake and directs the customer to a site set up by the robbers to look like the bank of the customer. The site guides the user to enter confidential data such as PINs and card numbers. The data is gathered by the robbers and used to create counterfeit cards to withdraw.
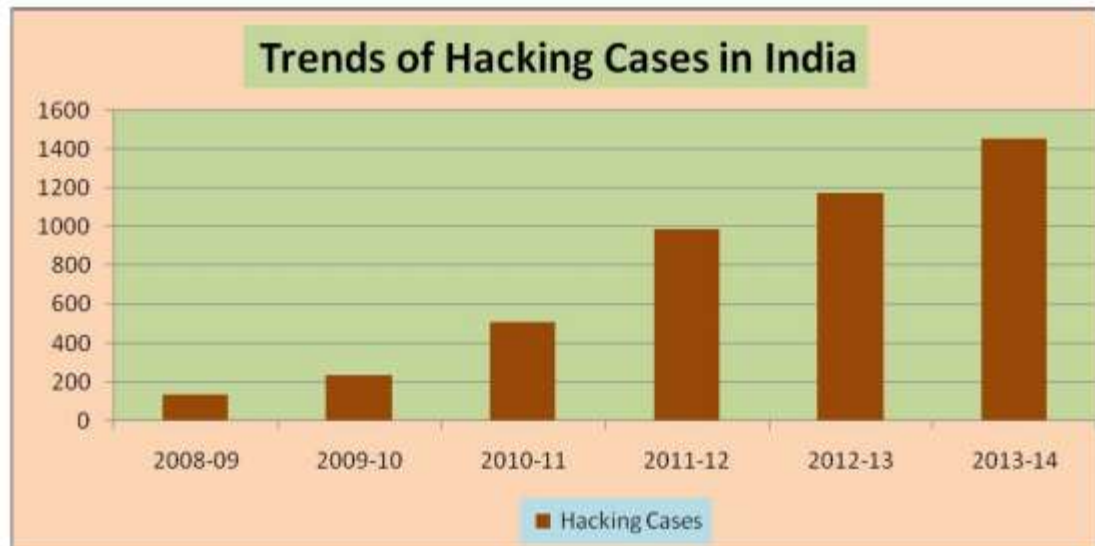
4.53 WEBSITE HACKING

Thieves use sophisticated programming methods to hack into websites residing on the network of a financial institution that access the networks of the bank to locate the ATM database. The robbers gather card numbers and change the PIN for the cards they are intending to use if necessary. The thieves then sell to other thieves the cards and their info. Using the stolen information, certain robbers build ATM cards and use the cards to withdraw cash from the accounts. Usually, the original robbers get a share of the proceeds.

TABLE NO. : 4.53

Number of Hacking Cases Registered under the IT Act		
2008-09	138	-
2009-10	233	68.84058
2010-11	510	118.8841
2011-12	983	92.7451
2012-13	1169	18.92167
2013-14	1450	24.03764

Source: National Crime Record Bureau Annual report

FIGURE 44-GRAPH NO. : 4.53

A daunting and very frazzling topic is website hacking. Hacking cases in India are on the rise every year. We can see that hacking cases are continuously growing in India if we concentrate on the above graph and table. There were only 138 hacking cases in 2008, but they increased to 1450 at the end of 2013, a rise of 118 percent .

4.54 FRAUD MONEY TRANSFER

Bankers, as well as clients, are facing it. Money transfer scams take a variety of forms and shapes. There are some of them:

4.55 LOTTERY & SWEEPSTAKES SCAMS

Often you get an awesome message in today's email. You won the lottery! The grand prize is big, and you've already started thinking about what you could do with that money. Then robbers want you to check and need your ATM card number, ATM card expiry date, account number, name, address and pin number. They move your money to their account after a couple of days.

4.56 THE RELATIVE IN NEED SCAM

Via email or phone call, you received a notice that your grandson or son was travelling to a specific city and is in an emergency. Even when he doesn't have a phone or he's hospitalized, he needs money. In order to reveal card information, fear hit you.

4.57 OTHER PROBLEMS

4.57.1 PHYSICAL ATM ATTACKS

In order to gain access to the money inside the ATM safe or the ATM security enclosure, ATM physical assaults are carried out. Ram raids, explosive attacks (gas and non-gas) and cutting are some of the most common techniques (e.g. rotary saw, blow torch, thermal lance, diamond drill). Robbery can also happen when replenishing or servicing ATMs. Workers are held up either when they bring cash to or from an ATM, or when the ATM safe is open and cash cassettes are replaced.

4.57.2 LACK OF AWARENESS

Thieves normally trick people who have no knowledge of ATM operations. People, especially from rural areas, do not have adequate knowledge of ATMs. So, they're having issues.

4.57.3 CREDIT CARD FRAUD

"Credit card fraud" is a significant form of computer crime. The Indian banking sector is developing new anti-counterfeiting and fraud technologies that are highly sophisticated to take advantage of or circumvent these programmes. The use of counterfeit cards is responsible for the bulk of credit card fraud. Credit card fraud is also referred to as "identity theft" in which an individual can use another person's identity for fraud or deception.

4.57.4 TRANSACTION AND MINI STATEMENT

Customers are often unable to obtain the slip showing them the account balance, often because of the paper running out inside the system and often because of technical difficulties, of course. The money also gets tucked at the end thread occasionally,

leaving the client unsure whether he should leave the ATM at the same minute or stick back there.

4.57.5 TIMED OUT ERROR

If the client is a little slow in entering his/her information, the request timed out error occurs. There was also a big problem with the ATM running out of money. Infact, banks often face many ATM threats and issues, such as fraud, theft, robbery, device issue, network failures, server issues, network issue, crowd, inadequate balance, and not printing statement, etc. due to overload and overuse of the means. ATMs are still not entirely free from hackers who threaten to access the web of the bank, thereby impacting the entire banking system. Often, without revealing my potential mistake, ATMs simply reject the transaction that indicates "transaction declined." Some of the most common problems faced by customers and also by banks are listed above.

4.58 RISK AND THREATS

What happens when a client's subtleties have been caught? Whenever crooks have caught card numbers and PINs, the data can be utilized in quite a few different ways.

The crooks regularly work in exceptionally coordinated groups and can be following up for the benefit of bigger criminal organizations. There has been an upsurge in groups of thugs coming from abroad to complete such trickiness.

Along these lines, a fruitful ATM wrongdoing may not just outcome in unapproved admittance to a furnish the criminal with the data and devices to carry out a more extensive assortment of offenses going from basic pantomime fakes to more mind boggling personality related fakes such record dominate.

This is maybe best represented by considering the developing scope of administrations that are accessible by means of an ordinary ATM served financial balance. In the event that, for instance the subtleties of your check card were undermined along with the PIN, the criminal may then be able to get to, assets from your record as well as possibly play out a scope of record the executives capacities explicitly coordinated at the commission of additional offenses.

Accordingly, the quantity of dangers and dangers are practically endless. Anyway at the most elevated level there are two general classes of dangers and dangers to be thought of –

The main danger classification revolves around more quick types of assault, for example, note traps, the Lebanese Loop where bank card is promptly acquired by the lawbreaker, or direct actual assaults on either ATM clients or the ATMs themselves for instance pick pockets or ra (a burglary wherein a shop window is packed with a vehicle and plundered)

The second danger class is centered around longer term harm and is ostensibly the most predominant because of the wide scope of assault marks. This sort of wrongdoing perpetually brings about the ensuing abuse of the data and character of the person in question. A scope of fakes including wholesale fraud, account takeover and coercion may result and for the person in question, aside from the monetary misfortunes, there are frequently bothersome effects, for example, weakened credit scores or unfriendly court decisions.

Looking forward, ATM wrongdoing is probably going to turn out to be much more appealing to the lawbreaker, as the kinds of administrations and items that are conveyed through the most recent age of ATMS proceed to create and advance. Just as expanding quantities of ATMS being intended to take a wide range of kinds of store for instance money and checks, many are presently being utilized to apportion different items which will likewise be alluring to the crook, for example, postal stamps(other sort of ATM utilized by postal deptt). In these conditions it is sensible to expect that the assortment of assaults will likewise continue to advance and ATM wrongdoings in the entirety of their various structures will keep on being a reason for concern in this way making the requirement for public mindfulness and wellbeing estimates all more prominent.

4.59 SECURITY IMPLICATIONS FOR ATM CARD HOLDERS

ATM misrepresentation has gotten all the more actually complex and lawbreakers have discovered new and imaginative methods of pulling out cash from money accounts utilizing phony or fake cards with genuine cardholder information on them.

Despite the fact that the criminal's techniques for getting to the cash have become further developed actually, the issues for the cardholders are as yet equivalent to they were when ATM extortion originally turned into a significant issue.

The principle focus on record holders is to protect their cash in the bank. Data security has, for a really long time, been zeroing in on specialized answers for boost insurance. As to ATM security occurrences over the new years, the human component has progressively pulled in more consideration.Cardholders should know about the dangers they are presented to and how to forestall misrepresentation happening, or what to do to limit the harm should their card subtleties fall into wrong hands.

ATMs are utilized by hoodlums both to accumulate card data and to deceitfully pull out cash from client accounts. Cardholders should continually know about the two issues when utilizing their cards, when noticing individuals pulling out cash, and while checking their own bank articulations.

Card Protection - Cardholders must be mindful of the danger to their cards, as well as how they can help deter the fraudulent withdrawal of money from others. When a cardholder enters the ATM, the first sign of anything not being quite right is. Being mindful of their surroundings is important for cardholders; standing close to the ATM and covering the key pad to prevent anyone seeing them entering their PIN. Being alert when using an ATM is the safest way for cardholders to secure their own card and card information.Regularly using the same ATM would make cardholders conscious of how the ATM might look and to observe standard, anticipated actions. If there is something suspicious about the machine, cardholders must ensure that they do not use the machine and report their findings and suspicions to their bank.

Personal Protection - If cardholders see suspicious activity around ATMs, it is critical that, if possible, they notify the bank immediately. It is vital that a suspicious looking ATM or one that does not function as planned is never further investigated; fraudsters are always near by, and will attempt to interfere, should anyone begin to more closely investigate the ATM. There are examples of cases where, when attempting to figure out what could be wrong with the system,ATM cardholders have been physically targeted. If you see someone behaving suspiciously and feeling

nervous using an ATM, then pass your doubts and findings on to the bank and use another ATM. Be mindful of other people around the ATM.

Protecting PIN - To get to the card data, fraudsters use several different methods, and the first line of protection to protect cardholders from being defrauded is to ensure that no one knows the PIN. They can get the cash quickly if fraudsters get to know the PIN. Throughout the world, ATMs do not have the same security protocols, and it is a safe rule for cardholders to change their PIN every time they are abroad. The Password they have to access accounts on other cards is often attempted by fraudsters, so a safe rule is always to have a different PIN for different cards.

ATM Card Details And The Internet - Another way to gain access to information about personal banking and authentication, e.g. PIN numbers are linked to the Internet. Duplicate cards can be generated once this information is collected. Incidents of phishing, where cardholders receive an email demanding them to click on links and provide bank and personal information, are on the rise. E-mails also come from sources that look legitimate, as fraudsters have found very sophisticated ways to mimic correspondence between banks of cardholders so that detecting a fraudulent message may often be different. A good rule is to never click on e-mail hyperlinks asking for confirmation of bank information. Using good anti-virus and firewall software on the PC (Personal Computer) used for Internet banking is another good law.

Another security safety measure may be to research the utilization of battery-powered financial cards that have restricted measures of cash put on them. This will keep the fraudsters from pulling out a gigantic amount of cash that a cardholder may have kept in a ledger.

Besides, customers ought to likewise be watchful when giving bank subtleties via telephone as somebody close by might be tuning in. Continuously attempt to locate a tranquil zone while reaching your bank utilizing the telephone. To empower to recognize a deceitful withdrawal, a cardholder ought to routinely check his bank exchanges and record adjusts.

The fraudsters will attempt to pull out cash as fast as they in fact can, after they have accessed card subtleties and PIN numbers. It is critical to inform the bank and now and again the nearby law specialists as fast as conceivable after a cardholder presumes that his PIN or potentially card subtleties have been unveiled, to empower the bank to put a square on the account(s) consequently forestalling deceitful withdrawals. Keeping essential; recall that when a card has disappeared, the crisis number will likewise be lost in the event that it isn't recorded it some place safe. Likewise, discover which number to call from abroad, as the number utilized at home may not work from a lodging switchboard.

Most ATM cheats occur because of the carelessness of clients in utilizing, and all the more significantly, carelessness of banks in teaching their clients about the issues that ought to be dealt with while at an ATM. The quantity of ATM cheats in India is more concerning carelessness of the Personal Identification Number (PIN), than by complex wrongdoings like skimming.

Banks likewise need to build up an extortion strategy the approach ought to be composed and disseminated to all representatives, borrowers and investors. Predominantly to the rustic clients who doesn't really think a lot about the ATM card use. Thus, the card can be impeded and again the clients need to meander around the bank specialists.

From the prior conversation, it turns out to be certain that a skirmish of brains is on among banks and their customers on one hand and the mafias on the other. Whatever new strategy to hold over an issue is concocted or tried by the specialists is before long countermined by criminal's components through more refined and keen techniques and instruments. What can anyone do at that point? Considering getting rid of ATMs will be as crazy as wishing ceaselessly the rail routes since they give simple methods for ending it all. The much promoted "computerized India" and "credit only exchange" are close to dope dream and will require some investment is turning into a reality. Till then ATMs and significantly more ATMs are the Hobson declared by the Prime Minister Modi on 8th November 2016 has exposed the mathematical lack of ATMs in India. As indicated by information delivered by RBI toward the finish of August 2016, there are only 215763 ATMs in India. It works out to just a single ATM

for more than 6000 individuals. To close the opportunity to use ATMs office (like some other opportunity) includes the need of unceasing cautiousness.

CHAPTER 5

FINDINGS, CONCLUSION AND SUGGESTIONS

CHAPTER 5

FINDINGS, CONCLUSION AND SUGGESTIONS

Economic prosperity has changed consumer demographics and technological factors have made consumers demand for better quality and efficient services. The service industry is becoming major contributor to the economy of many countries which were earlier dependent on the manufacturing sector. Service industry particularly the banking sector is not left behind in the competition. Banking industry has been highly commoditized. To be in business, every retail bank should have competitive differentiation that can be realized to a great extent through customer service excellence. The aim of retail banking industry is to satisfy customers and deepen their relationships. This can be achieved by taking the benefits of every cross-selling and up-selling opportunity. The availability of advanced technologies will help in boosting the cross-selling, increase customer retention and differentiate the brands in the retail banking sector.

The retail banking industry is facing stiff competition and the current scenario is that of the survival of the fittest. All the banks are trying to expand their customer base and are developing their own long-term strategies to stay in the market. To improve the customer services and relationship management many of the retail banks adapt information technology that has helped in integrating and consolidating banking operation. Competition in retail banking is increasing between the existing players, from international players and even from the new entrants. Retail banks should cope with the competition by providing excellent service through customer orientation for which can be achieved through specialization.

Retail banks in India are designing specialized and customized products keeping in mind their customer segment. To be able to up-sell and cross-sell their products, retail banks have to keep a good relationship with their client segment. The client segment is categorized according to the location of retail banks too like the urban and rural areas. Strategies are developed differently for different segments. Retail banks implement segment specific channel strategies to develop high-performance by migrating clients to cost-effective direct channel. Another strategy adopted by retail banks are the development of contact centre services and processes for high-end and

180

low-end customers. Retail banks are increasing their cross-selling and up-scaling activities for private banking clients with the intention of increasing their customer base and improve their customer relation. Product innovation is another strategy applied by retail banks. The different client segments are offered other services like insurance or leasing services.

The latest strategy is in the use of debit/ATM cards in all processing platforms irrespective of the retail banks. In other words a single credit/debit/ATM card can be used in any of the ATM machine without any processing or transaction fee. Retail banks adopted the strategy of strengthening the online offerings by implementing new direct net features and also integrating the newer and the traditional sales channels for the clients who are tech-savvy and use the internet for their transactions and dealing in the banks. Retail banks adopt the strategy of increasing their product penetration to the existing clients in the traditional market while for the urban or metro markets, increasing the distribution and selling of specialized business products to commercial customers is focused more. Many banks focus on those markets that provide them with the best mix market growth and target clients concentration.

The broad objectives of the research were to find out the compatibility between objective and Service Quality of Retail Banking in India. The study also aimed at ascertaining the gap in perception of customers on the Service Quality Dimension between Public Sector Banks and Private Sector Banks. The hypotheses constructed have been tested by means of the survey conducted to elicit the perception of customers on the Service Quality dimension (Tangibles, Reliability, Responsiveness, Assurance and ATM Service Quality) between Public Sector Banks and Private Sector Banks. The analysis of the data collected through the survey has few positive results and confirmed the hypothesis of the study.

5.1. FINDINGS

The important findings of the present study are summarized below:

To find out the differences in perception of customers on the Service Quality dimension Public Sector Banks and Private Sector Banks, independent t-test and one way analysis of various (ANOVA) was used. Significant differences emerged

between the Public Sector Banks and Private Sector Banks on the Service Quality dimensions. Customers of Private Sector Banks are highly satisfied in comparison to Public Sector Banks on the Service Quality dimensions. Customers of Public Sector Banks are not as much satisfied on the ground of Tangibility, Reliability, Responsiveness and Assurance on the Service Quality which shows the difference in the percent Service Quality of the customers in Public Sector Banks and Private Sector Banks. Customers of the bank have different perception and expectation regarding the Service Quality of their banks.

The customer perception regarding the Service Quality dimensions between Public Sector Banks and Private Sector Banks is different on the Tangibility, Reliability, Responsiveness and Assurance. This means that there is significant difference in the perceptions of customers on the Service Quality dimension between Public Sector Banks and Private Sector Banks.

The Service Quality dimension of 'Tangibility' measures the 'Physical features', physical appearance, 'physical material such as Pamphlets etc and reception desk employees', The perception of customers regarding the dimension 'tangibles' between Public Sector Banks and Private Sector Banks is different. The mean value of private sector banks is higher in comparison to Public Sector Banks which indicate that there is significant variation in the perception of customers regarding the Service Quality dimension of 'tangibles' between Public Sector Banks and Private Sector Banks. The customers of Private Sector banks have positive attitude towards the physical facilities of their banks in comparison to the customers of Public Sector Banks.

The Service Quality dimension 'reliability' means the 'Service offered by banks', 'problem solving', on time service, error free service'. The perception of customers regarding the dimension 'reliability' between Public Sector Banks and Private Sector Banks differs. The mean values of Private Sector Banks is higher in comparison to Public Sector Banks which identifies that there is significant variation in the perception of customers regarding the service quality dimension of reliability between public and private sector banks. The customers of private sector bank have positive attitude towards the reliability of service quality dimension in comparison to Public Sector Banks.

The service quality dimension 'responsiveness' measures the response of the employees regarding the prompt services, willingness to help, respond to request and bank's behavior with their customers. The perception of customers of Public and Private sector Banks is different regarding the service quality dimension of responsiveness. The mean score of private sector banks is higher than the Public sector Banks which indicate the significant variation in the perception of customers regarding the service quality dimension of reliability between Public and private sector bank. It is found that the customers of Private Sector Banks have more satisfaction towards the 'responsiveness' attribute of their bank employees in comparison to the customers of Public sector Banks.

The service quality dimension 'assurance' measures the behaviour of employees, safety in transaction, politeness of employees and knowledge of the employees. The satisfaction level of customers regarding service quality dimensions 'Assurance' is different in Public sector Banks and Private Sector Banks. The mean values of Private Sector Banks is higher than Public Sector Banks which shows that there is significant variation in the perception of customers for the service quality dimension 'Assurance' between Public and Private Sector Banks. The customers of Private Sector Banks have more satisfaction towards the behavior of employees, safety in transaction, politeness of employees and knowledge of the employees in comparison to Public Sector Banks.

The service quality dimensions 'ATM service quality' measures the 'quickcash withdrawal through ATM', ATM location, safe and secure ATM transaction, ATM machine, Attractive appearance of ATM, excellent quality of currency. The satisfaction level of customers regarding the service quality dimensions 'ATM service quality' is same in both the Public Sector Banks and Private Sector Banks. The mean values in case of public and private sector banks for 'ATM service quality' do not make any difference. This indicates that there is no significant variation in the perception of customers for the Service Quality dimension 'ATM Service Quality' between Public Sector Banks and Private Sector Banks in Retail Banking. It is found that the customers have no difference in the satisfaction towards the 'quick cash withdrawal through ATM, ATM location, safe and secure ATM transaction, ATM

machine, Attractive appearance of ATM, excellent quality of currency between Public Sector Banks and Private Sector Banks in Retail Banking.

5.2. CONCLUSION

Retail Banking deals with lending money to consumers which include a wide variety of loans, including credit cards, mortgage loans and auto loans. Retail Banking refers to banking in which banking institution execute transactions directly with consumers, rather than corporations or other entities. It is generally conceived to be the provision of mass market banking services to private individuals. It has expanded over the years to include in many cases services provided to small and medium sized business.

Retail banking is the fastest growing sector of the banking industry with the key success by attending directly the needs of the end customers. It holds a glorious future in coming years. Retail banking sector as a whole is facing a lot of competitionever since financial sector reforms were started in the country. Walk in business is a thing of past and banks are now on their toes to capture business. Banks therefore, are now competing for increasing their retail business. There is a need for constant innovation in retail banking. This requires product development and differentiation, micro planning, marketing, product pricing, customization, technological upgradation, home/electronic/mobile banking, effective risk management and asset liability management techniques. While retail banking offers phenomenal opportunities for growth, the challenges are equally discouraging. How far the retail banking is able to lead growth of banking industry in future would depend upon the capacity building of banks to meet the challenges and make use of opportunities profitably.

However, the kind of technology used and the efficiency of operations would provide the much needed competitive edge of success in retail banking business. Furthermore, in all these customers interest is of chief importance. The banking sector is continuously rising to succeed in this credit path. Today retail banking sector is marked by high customer expectations and technological innovations. Technology is playing a crucial role in the day today functioning of banks. The banks that have harnessed and leveraged technology best have a strategic advantage. To face competition it is necessary for banks to absorb the technology and upgrade their services.

The customer services are playing a very significant role in banking business. In India major financial sector reforms, deregulation, liberalization and privatization have unleashed forces of competition making the banks run for their business, not only to create the customer, but more difficult to retain the customers. Prompt and efficient customer service has become very significant. The present study hasreviewed the literature available, the methodology has been outlined, the literature review demonstrated the vitality of this research within the retail banking industry in India and identified areas for improvement and how making the warranted changes would improve the Indian Retail Banking Industry ability to satisfy its customer's needs and thus increase customer satisfaction and service quality of retail banking in India.

The foregoing discussion and analysis lead to the conclusion that banking structure of India is full of potential for growth. Indian Banking Industry has registered considerable development with significant impact on GDP, National Income, Per Capita Income, expansion and diversification of financial sectors of India. For the future growth prospects, retail banking in India has emerged as the showcase of innovation and development through its various products like personal loan, home loans, educational loans, deposits, credit and debit cards and depository services. There is a need of constant innovation and transformation of Retail Banking. Retail Banking develops a paradigm shift in financial services provided by bank through its innovative products and policies.

The emergence of new economies and their rapid growth has been the important contributing factor in the resurgence of Retail Banking. Changing life styles, fast improvement in information technology and other service sector, level of income have contributed to the growth of Retail Banking in India. The Indian Banks are facing a tough competition to grab a pie of Retail Banking Sector, which has enormous future growth prospects. Both Public Sector Banks and Private Sector Banks have cut throat competition to meet the requirements of customers and challenges like retention of customers, introduction of new technological facilities and investment in such facilities like Security norms, KYC norms and credit evaluation.

Both Public Sector Banks and Private Sector Banks are vying each other to provide the Retail Banking facilities, such as housing loans, auto loans, educational loans,

personal loans, various term deposits, debit/credit card facilities, smart card facilities etc. The most important factor that contributes to Retail Banking is the service quality provided by the different banks. In the present study, the focus is on the dimensions of the service quality in the Retail Banking industry which has been tested by using both traditional and modifying SERVQUAL model (Persuraman *et.al*, 1985). The study is based on the comparative analysis of service qualitydimensions both in public sector banks and private sector banks.

The study has tried to find out the perception of customers regarding the various service quality dimensions (Tangibles, Reliability, Responsiveness, Assurance and ATM Service Quality) between public sector banks and private sector banks in retail banking. For this purpose primary data was collected from various cities of U.P. and Delhi. From the analysis it has been found out that there exists a gap in the perception of customers regarding the service quality dimensions between public sector banks and private sector banks. Perception of customers varies between public sector banks and private sector banks. The analysis further reveals that customers of public sector banks are highly satisfied regarding the service quality dimension that is Tangibles, Reliability, Responsiveness and Assurance as compared to public sector banks. However, there is no variation in the perception of customers regarding the service quality dimensions 'ATM service quality' between public sector banks and private sector banks. The findings of perceptions about service quality dimensions is bases on '497' respondents at random taken from the various cities of U.P. and Delhito represent the view of the customers about the service quality dimensions. The results of the analysis have proved that there is significant difference between the public sector banks and private sector banks regarding the service quality dimensions.

THE STUDY CONCLUDES THAT:

There is significant difference in the perception of customers regarding the service quality dimension of Tangibles (Physical features, physical equipments) between public sector banks and private sector banks.

The customers of private sector banks have greater satisfaction regarding the service quality dimension of reliability (service offered by banks, problem solving, error free records) as compared to public sector banks.

The customers of private sector banks are highly satisfied regarding the service quality dimension of responsiveness (Prompt service, willingness to help, respond to request) as compared to public sector banks

The customers of private sector banks are highly satisfied regarding the service quality dimensions of Assurance (behavior of employees, politeness of employees) as compared to public sector banks.

The satisfaction of customers regarding the service quality dimension "ATM service quality" (quick cash withdrawal through ATM, ATM location, safe and secure ATM transaction, ATM machine) is same between public sector banks and private sector banks.

In nutshell, the present research has found out the perception of customers regarding the service quality dimension between public sector banks and private sector banks in retail banking and draws the conclusion that there exist variations in the perception of customers regarding service quality provided by public sector banks and private sector banks. A gap exists in the satisfaction level of customers in four outof five attributes of service quality dimensions, viz: Tangibles, Reliability, Responsiveness, Assurance and ATM service quality between public sector banks and private sector banks. In case of the fifth attribute of service quality dimension, viz "ATM service quality" banks of both the sectors are at par in the satisfaction level of customers.

To overcome the striking variation and level up the perception of satisfaction of customers with the service quality offered by their banks of public and private sectors in retail banking the following suggestions are made:

5.3. SUGGESTIONS

There is difference of opinion among the customers of public sector banks and private sector banks regarding the service quality dimensions. Although customer is the king in the present day market, their opinion is more important compared to profitability of the banks. They regard the objectives of retail banking achievable on the service quality dimensions. It is necessary for PSBs and private sector banks to increase the motivational powers of the customers by satisfying them through well organized

efforts, especially by providing confidence that the working and products of retail banking are highly useful for the customers.

1. The need for retail banking services provided by public sector banks is to improve their speed and efficiency of service delivery in a secure environment.

2. There is need to improve the quality of service delivery in such areas as accuracy in customer accounts management and, excellent and cordial banker-customer relationships by public sector banks.

3. It is felt that the retail banks to embark upon confidence building of their customers, so that both the parties would grow simultaneously in the process. This would help to increase credit facilities and investment advisory services to their worthy customers.

4. In order to have confidence of customer, the public sector banks have to consciously cultivate the habit of treating their customer as king. This would include provision of more and more customized services that are tailor-made to suit their individual needs.

5. The setting up of a new competitive environment has resulted in new challenges for the public sector banks to retain their share. Ongoing changes in the structure of Indian banking industry are clearly visible. The new private sector banks have succeeded in enhancing their position as retail banks.

6. The public sector banks need to recast their strategies model for the different dimensions of service quality so that they can be able to choose the right dimension and instrument to offer competitive services for the sake of holding sustainable growth and profitability for the organization.

7. The service quality dimension "Tangibles" is defined by whether the physical facilities and material associated with the services are visually appealing at the bank. All these are the factors that customer notice before or upon entering the banks. These visual factors help customer to form their initial impression. All these tangibles that are the service facilities equipments and communication

material are clues about the intangible services. The public sector banks can improve quality through tangible means to attract attention of customers to the smallest details of the banks. This visible detail can add up for customers and signal a message of caring and competence.

8. The service quality dimension "Reliability" is defined by the promise to do, problem solving techniques, performed service right to the first time, and error free records. The dimension reliability is associated with the bank's ability to perform the promised service accurately and dependably. Performing the services dependably and accurately is the heart of service marketing excellence. Although there is no doubt that the public sector banks have been acquiring the large number of customers as compared to private sector banks but the customers of private sector banks feel more satisfaction regarding the Reliability dimension.

9. The service quality dimension "Responsiveness" is defined by quick response to request, behavior of employees. The dimension responsiveness is associated with the overall customer satisfaction. The rudeness of the bank's customer service representative, the abruptness of the employees at the teller counter, reverses the impression created by high technical quality. The public sector banks need to improve on the responsiveness dimension by provision of personalized, courteous services and helpful employees who understand the customer's need and this can be the strongest driver of success.

10. The service quality dimension "Assurance" is defined by willingness to help, politeness of bank employees. The service quality dimension assurance is associated with the dealing of individual customers and importance ofcustomer at the counter. Unwillingness to help or harsh behavior of employees has a negative feedback about the bank's employees which will reduce the faith of the customers in the respective bank. Hence, the public sector banks need to improve their treatment of customers on the dimension assurance by their employees in a positive way so as to retain their customers.

11. The service quality dimension "ATM service quality" is defined through the convenience of branch location, spreading the bank's ATM network, quality

of currency and quick cash withdrawal. The ATM service quality dimension is the enabling factor contributing to service quality by making it easy and comfortable for the customer to do business with their banks on regular basis. The banks need to improve their retail banking business through ATM service quality by expanding their withdrawal limit, new ATM locations increase the safety of transactions and prompt card delivery.

12. Banks should observe the RBI norms and provide facilities as per the norms which are not being followed by the banks. While the customer must be given prompt services and the bank officer should not have any fear on mind to provide the facilities as per RBI norms to the units going sick.

13. Banks should provide loans at the lower interest rate and education loans should be given with ease without much documentation. All the banks must provide loans against shares. For fair dealing with the customers, the staff should be cooperative, friendly and must be capable of understanding the problems of customers.

14. Internet banking facility must be made available in all the banks. Prompt dealing with permanent customers and speedy transaction without harassing the customers would enhance the image of the banks.

15. Each section of every bank should be computerized even in rural areas also. Real Time Gross Settlement can play a very important role to enhance the retail services by public sector banks.

16. More ATM coverage should be provided for the convenience of the customers. No limit is placed on cash withdrawals on ATM cards.

17. The public sector banks should bring out new schemes from time-to time so that more people can be attracted. Even some gifts and prizes may be offered to the customers for their retention.

18. 24 hours banking should be introduced so as to facilitate the customers who may not have a free time in the day. It will help in facing the competition more effectively.

19. The charges for saving account opening are high, so they should also be reduced. Banks should increase the rate of saving account.

20. Customers generally complain that full knowledge is not provided to them. Thus, the bank should properly disclose the features of the product and services to the customers. Moreover door to door services can also be introduced by bank.

21. The need of the customer should properly be understood so that customer feels satisfied. The relationship value should be maintained. Branch should promote cooperation and coordination among employees which help them in efficient working.

22. The technology driven services with hi-tech facilities of electronic fund transfer and electronic mail services should be effectively utilized to satisfy the customers. The customers need to be informed about the type of forms used for each transaction and to respond to their queries and complaints.

23. The Study has identified the areas of concern and pointed out the suggestive measures to remove bottlenecks and the operational lacunae in rendering of customer services and satisfaction. This would really help the appropriate bank authorities to evolve suitable strategy for the enhancement of customer satisfaction by providing efficient service and to put forth best performance level in future.

24. The study had incorporated time factor, human relation approach of bank employees, the enquiries and the employee response, knowledge and skill of the employees as indicators of good customer satisfaction. These variables were systematically weighed in determining the customer satisfaction. This study would definitely enable the bank authorities to bring this to the notice of bank employees who must shoulder the moral responsibilities for the growth and development of the country, in retail banking industry in particular.

REFERENCES

REFERENCES

1.   Adeoti, Johnson Olabode (2011) Automated Teller Machine (ATM) Frauds in Nigeria: The Way Out' J Soc Sci, Vol-27(1), pp-53-58.

2.   Anita A. Comparative Study of Public and Private Sector Banks of India in Regards to Customer Satisfaction. International Journal of Reviews, Surveys and Research (IJRSR). 2014; 3(2).

3.   Anita, Singh M. Customer Satisfaction & Retail Banking: A Study of Customer Satisfaction in Retail Banking. International Journal of Reviews, Surveys and Research. 2013;http://www.ijrsr.com/January2013/12.pdf

4.   Anita, Singh M. Customer Satisfaction & Retail Banking: A Study of Customer Satisfaction in Retail Banking. International Journal of Reviews, Surveys and Research (IJRSR). 2013.

5.   Arora S, Kaur S. Financial Performance of Indian Banking Sector in Post-Reform Era. The Indian Journal of Commerce. 2006; 59(1): 96-105.

6.   Arora S. Marketing of Financial Services. Deep and Deep Publications Pvt. Ltd. New Delhi. 2005; 90-110.

7.   Arora U, Verma R. Banking Sector Reforms and Performance Evaluation of Public Sector Banks in India. Punjab Journal of Business Studies. 2005; 1(1): 11.

8.   Asgarian FA. Comparative Study on Service Quality and Customer Satisfaction between Public Banks and Private Banks in Iran. Institute of Graduate Studies and Research. 2010.

9.   Aurora S, Malhotra M. Customer Satisfaction: A Comparative Analysis of Public and Private Sector Banks. Decision 24(1-4), IIM Calcutta. 1997; 109-130. Available from: http://ssrn.com/abstract=1483619

10. Azhagaiah R, Sandanam G. Financial Performance of Private Sector and Public Sector Banks in India: An Empirical Analysis. International Center for Business Research. 2012;1.

11. Available from:http://inclusion.skoch.in/story/250/priority-sector-lending-by-banks-myths-and-realities-550.html

12. Avkiran, N.K., Productivity Analysis in the Service Sector with Data Envelopment Analysis 2nd ed. 2002.

13. Alhaffa, Alaa and Abdulal ,Wael, (2011) 'A Market-Based Study of Optimal ATM'S Deployment Strategy *International Journal of Machine Learning and Computing, Vol.1, No. 1, April 2011.*

14. Adelowo Solomon Adepoju (2010) 'Challenges of Automated Teller M Usage and Fraud Occurrences in Nigeria - A Case Study of Selected Banks in Minna Metropolis' *Journal of Internet Banking and Commerce,* A*ugust 2010, vol. 15, no. 2*

15. Austin, Granville (1999). Working a Democratic Constitution - A History of the Indian Experience. New Delhi: Oxford University Press. p. 215. ISBN 0-19 565610-5"Social Controls, the Nationalization of Banks and the era of bank expansion - 1968 to 1985". Reserve Bank of India. Retrieved 12 January 2015.

16. Bharath E, Dhananjaya K M, Anoop C.N., Raghavendra B. V., (2012) 'Automated Teller Machine (ATM) Banking a User friendly*' IJMBS* Vol. 2, Issue 4, Oct - Dec 2012.

17. Bhosale, S.T., & Sawant, S. B., (2012) Security In E-Banking Via Card Less Biometric ATMs International Journal of Advanced Technology & Engineering Research (IJATER) Volume 2, Issue 4, July 2012.

18. Bhosale, S.T., (2013) 'A Study on Usage of ATM Services in Sangli District International Journal of Advanced Research in Computer Science and Software Engineering Volume 3, Issue 7, July 2013 ISSN: 2277 128X.

19. Bishnoi, Sunita, (2013) "An Empirical Study Of Customers' Perception Regarding Automated Teller Machine In Delhi And Nor *Integral Revi*ew- A *Journal of* M*anagement p-I*SSN *: 0974-8032, E- I*SS*N : 2278-6120, Vol. 6 No. 1, June 2013, pp 47-60*

20. Bagli S, Dutta P. A Study of Financial Inclusion in India. Journal of Radix nternational Educational and Research Consortium. 2012; 1(8).

21. Batra A. Financial Inclusion & Women Empowerment: A Myth of Reality.International Journal of Research in Finance & Marketing. 2013; 3(12).

22. Bhanot D. Studying Financial Inclusion in North East India. International Journal of Bank Marketing. 2012; 30(6): 465-484.

23. Bhatt A. Study of Marketing Research in Banking. NIBM Pune-5. 1990.

24. Bhattacharjee. Financial Inclusion of the Identified Slum Dwellers in Assam. Reviews of Literature. 2014; 1(12).

25. Bhayani SJ. Performance of New Indian Private Sector Banks: A ComparativeStudy.Journal of Management Research. 2006; 5(11): 53-70.

26. Bhole LM, Mahakud J. Financial Institution and Markets (Structure, Growth and Innovation). Tata McGraw Hill Education Pvt. Ltd, New Delhi. 5th Edition. 2009.

27. Bilamge PC. A Comparative Study Of Customer Perception Towards Services Rendered By Public Sector And Private Sector Banks. Indian Journal of Commerce & Management Studies. 2011;2(2): 110-113.

28. Bisht NS, Mishra RC, Belwal R. Liberalization and its Effects on Indian Banking. Finance India. 2002; 16(1): 147 – 152.

29. Bodla BS, Verma R. Performance of Commercial Banks in India: A temporal and Sectoral Analysis. Asian Economic Review. 2006; 18(3): 489-504.

30. Bodla BS, Verma R. Evaluating Performance of Banks through CAMEL Model: A Case Study of SBI and ICICI. The ICFAI Journal of Bank Management. 2006; 5(3): 49-63.

31. Chandan, C.L. and Rajput, P.K. (2010), "Financial Performance Analysis of Commercial Banks: A Comparision of Federal Bank, Dhanlakshmi Bank, and SBI", Professional Banker, Vol. 8, No. 9, pp. 34-44.

32. Chidambram R. M and Alamelu (2013), "Financial performance of Nationalised Banks", NICE Journal of Business, Vol. 5, No. 2, pp. 67-*79*.

33. Chakrabarti R, Chawla G. Bank Efficiency in India since the Reforms: An Assessment, Money and Finance. Indian Journals.com-A product of Divan Enterprises College of Management. 2005; 2: 22-23.

34. Chakravarthy Committee. Report of Committee to review the Working of the Monetary System. Reserve Bank of India. Bombay. 1985.

35. Chattopadhyay SK. Financial Inclusion in India: A Case Study of West Bengal. Reserve Bank of India Working Paper. 2011; 2. Available from: http://mpra.ub.uni-muenchen.de/34269

36. Chauhan AA. A Study on Overview of Financial Inclusion in India. Indian Journal of Applied Research. 2013; 3(12).

37. Chauhan P, Ved P. Relative Efficiency of Indian Commercial Banks. Indian Journal of Commerce. 2013; 62.

38. Chawla OP. Funds Planning and Control in Banks. National Institute of Bank Management. Pune. 1989.

39. Chhabra N. Financial Inclusion in India. Maharshi Dayanand University. 2014. 3p.Available from: http://shodhganga.inflibnet.ac.in/handle/10603/106262

40. Chopra K. Managing Profits, Profitability and Productivity in Public Sector Banking. ABS Publications. Jalandhar. 1987.

41. Choudhary V, Tondon S. Performance Evaluation of Public Sector Banks in India. Sri Krishna International Research & Educational Consortium. 2010; 1(1).

42. Cooper DA, Schindler PS. Business research methods ninth edition, empirical investigation. Journal of Service Research. 2006; 1(2): 108-128

43. Das A.(2012), "Ownership Effects on Bank Performance: A Panel Study of Indian Banks", Paper presented at the Fifth Annual Conference on Money and Finance in the Indian Economy, Indira Gandhi Institute of Development Research, Mumbai, January 30-February 1

44. Dewan & Seidmann, (2001) 'Usable Security and E-banking: Ease of Use vis-à-vis Security'.

45. Dhar S. K., Tanzina, Rahman., (2013) Case Study for Bank ATM Queuing Model IOSR Journal of Mathematics (IOSR-JM) E-ISSN: 2278-5728,p-ISSN: 2319 765X, Volume 7, Issue 1 (May. - Jun. 2013), PP 01-05 www.iosrjournals.org.

46. Das A. Measurement of Productivity, Efficiency and its Decomposition in Indian Banking Industry. Asian Economic Review. 1997; 32(2): 422-39.

47. Das U, Lal K. Banking reforms and lead bank scheme. Deep and Deep Publications Private Ltd. New Delhi. 2002; 198-219.

48. Debashish SS, Mishra B. Indian Banking System (Development, Performance and Services) Mahamaya Publishing house, New Delhi. 2005; 175-195.

49. Dhade A, Mittal M. Preferences, Satisfaction Level and Chances of Shifting: A Study of the Customers of Public Sector and New Private Sector Banks. The ICFAI Journal of Bank Management. 2008; 7(2): 62-74.

50. Dhar SK. Financial Inclusion – Call of the Day.Prism India. 2010; 7(3): 21-24.

51. Dharmalingam S, Kannan KV. Customer Perception on Service Quality of New Private Sector Banks in Tamilnadu - an Empirical Study. Journal on Banking Financial Services and Insurance Research (JBFSIR). 2011; 1(5).

52. Divatia VV, Venkatachalam TR. Operational Efficiency and Profitability of Public Sector Banks. RBI Occasional Papers. 1978; 1-16.

53. Divya KH. A Study on Impact of Financial Inclusion with Reference to Daily Wage Earners. Journal of Business Management & Social Sciences Research. 2013; 2(6). www.borjournals.com

54. Dixit R, Ghosh M. Financial Inclusion for Inclusive Growth on India-A Study of Indian States. International Journal of Business Management & Research. 2013; 3(1): 147-156.

55. Dwivedi AK. Efficiency of Indian Banking Industry in the Post-Reform Era. Indian Institute of Management. Ahmadabad. 2011.

56. Gopalan and Santhans, M., Indian Money Market: Structure, Operation and Developments, Deep & Deep Publication Ltd. New Delhi 2000.

57. Gulhsan, S.S. and Kapoor, Gulshan, K., Banking Law and Practice, S. Chan & Company Ltd., New Delhi, 1994.

58. Gupta, Suraj B., Monetary Economics, S.Chand & Company Ltd. New Delhi. 2013.

59. Gupta. H. R., 'Practical Banking in India' Gyan Publishing House New Delhi 2011.

60. Gheeta, P., (2014) 'Awareness of Atms in India' Volume: 4, Issue: 3, Mar 2014, ISSN - 2249-555X.

61. Gugapriya A Et Al (2013) Mobile Banking With Location Tracking Of Nearest ATM Center Using GPS' (IJITR) International Journal Of Innovative Technology And Research Volume No. 1, Issue No. 3, April - May 2013, 253 - 255.

62. Garg S, Jindal P, Bhavet. A Comparative Study on Customer Satisfaction with Service Quality in Public and Private Sector Banks. International Journal of Research in Commerce, IT & Management. 2013; 3(1).

63. Gauba R. The Indian Banking Industry: Evolution, Transformation & The Road Ahead. Pacific Business Review International. 2012; 5 (1): 87.

64. Gill HS, Arora S. Study of Customer Satisfaction: A Comparison of Public and Private Banks. Pacific Business Review International. 2013; 6(6).

65. Goel D, Kumari H. Customer Satisfaction and Customer Retention in Private Banking Sector: The Case of HDFC Bank, Chandigarh (Panchkula and Mohali). GE-International Journal of Management Research. 2014; 2(6).

66. Gopal M, Dev S. Productivity and Profitability of Select Public Sector and Private Sector Banks in India: An Empirical Analysis. The ICFAI Journal of Bank Management. 2006; 5(4): 59-67.

67. Goyal KA, V. Joshi V. Indian Banking Industry: Challenges and Opportunities.

68. Gupta N, Malik S. Financial & Banking Sector Reforms in India. International Journal of Advance Research and Innovative Ideas in Education. 2016; 2(4): 1077.

69. Gupta P, Mishra CM, Rahman T. A Comparative Study on Customer Satisfaction in Indian Public Sector and Privet Sector Banks (With Special Reference to Delhi and NCR Region). International Journal of Social Science & Interdisciplinary Research. 2013; 2(8).

70. Gupta R, Sikarwar NS. A Comparative Study of Growth Analysis of Punjab National Bank of India and HDFC Bank Limited. International Journal of Application or Innnovation in Engineering & Management. 2013; 2(2).

71. Gupta VP, Agarwal PK. Comparative Study of Customer Satisfaction in Public and Private Sector Banks in India – A Case Study of Meerut Region of U.P. Global Journal of Business Management. 2013; 7(1).

72. Harsh VV. Marketing of Services. Global Business Press. New Delhi. 1993.

73. Hassan MK. The experience of the Grameen Bank of Bangladesh in community development. International Journal of Social Economics. 1997; 24(12): 1488-1523.

74. Hays FH. Lurgio SA, Gilbert AH. Efficiency Ratios and Community Bank Performance. Journal of Finance and Accountancy. 2010; 1-15.

75. Hugar SS, Vaz NH. An Evaluation of Customer Orientation of Indian Public Sector Banks. Indian Journal of Marketing. 2008; 38(6): 31-41.

76. Human Development Report. United Nation Development Program. New York. 2006.

77. http://www.stcipd.com/UserFiles/File/A%20Guide%20to%20RBI's%20Weekl y% 20Statistical%20Supplement.pdf

78. http://www.iibf.org.in/documents/reseach- report/Macro_Research_Rethinking_PSL_Final_Report.pdf

79. International Journal of Business Research and Management. 2012; 3(1): 18-19.

80. ICFAI Journal of Bank Management No7vol 3 Jan 2012.

81. Jhingan, M. L., (2012) Money, "Banking, International Trade and Public Finance Varinda Publication New Delhi.

82. Jhingan, M.L., Money Banking International Trade and Public Finance, 6th Ed., Vrinda.

83. Joshi, Vasant, C., and Joshi, Vinay, V., Managing Indian Banks: The Challenge Ahead, Response Book, a Division of Publication Pvt. Ltd., New Delhi, 2009.

84. Jeevan (2000) 'Bankers' Perspectives On E-banking' NJRIM Vol.1, No.1.

85. Jha, B.K, Gupta, S.L. and Yadav, Puneet (2008) New Technology in Indian Banking the Icfai Journal Vol. VI No.1, pp. 99.

86. Jha, D.K., and D.S. Sarangi (2011), "Performance of New Generation Banks in India: A Comparative Study", International Journal of Research in Commerce and Management, Vol. 2, No. 1, pp. 85-89.

87. Jain S, Parida TK, Ghosh SK. Rethinking Priority Sector Lending for Banks in India. IIBF Macro Research Paper. 2015.

88. Jain V. Ratio Analysis: An Effective Tool for Performance Analysis in Banks.PNB Monthly Review. November. 2006; 27-29.

89. Jha S, Hui X. A comparison of financial performance of commercial banks: A case study of Nepal. African Journal of Business Management. 2012; 6(25): 7601-7611.

90. Joseph N, Mazzotta BD. Frugal Finance: How Eko helps India's Migrants Move and Manage Money. IBGC Working Paper. 2014; 14(01).

91. Joshi V, Little IMD. India's Economic Reforms 1991-2001. Delhi. 1997. 111p.

92. Kaptan, S., S., and Choubey, N.S., 'Indian Banking Electronic Era' Sarup &Sons New Delhi, 2003.

93. Kanojia, Deepti & Yadav, D.R., (2012) Customer Satisfaction in Commercial Banks A *Case Study of Punjab National Bank International Journal of Trade and Commerce-IIARTC January-June 2012, Volume 1, No. 1, pp. 90-99 ISSN 2277-5811.*

94. Kaptan, S., S., and Choubey, N.S., 'Indian Banking Electronic Era' Sarup &Sons New Delhi pp-91.

95. Kalita BK. Financial Sector Reforms in India-A Descriptive Analysis. Abhinav National Monthly Refereed Journal of Research in Commerce & Management. 2013; 2(8): 14-22.

96. Kangis P, Voukelatos V. Private and Public Banks: a Comparison of Customer Expectations and Perceptions. International Journal of Bank Marketing. 1997; 15(7): 279-291.

97. Kanojia D, Yadav DR. Customer Satisfaction in Commercial Banks- A Case Study of Punjab National Bank. International Journal of Trade and Commerce. 2012 1(1): 90-99.

98. Karmakar KG. Priority Sector Lending by Banks: Myths and Realitie 2014.

99. Kaur H, Tanghi BS. Financial Inclusion: A Way to Sustainable Growth. Gain Jyoti E-Journal. 2014; 4(4).

100. Kaur R. Performance Evaluation of Indian Banking System: A Comparative Study of Public Sector and Private Sector Banks. South Asian Journal of Marketing & Management Research. 2012; 2(1).

101. Kaura. Antecedents of customer satisfaction: a study of Indian public and privatesector banks. International Journal of Bank Marketing. 2013; 31(3): 167-186.

102. Kaushik S. Social Objectives and Profitability of Indian Banks. UBS. PU. Chandigarh. 1995.

103. Kendall J, Mylenko N, Ponce A. Measuring Financial Access around the world – The World Bank Financial and Private Sector Development Financial Access. Team Policy Research Working Paper. 2010; 37-53.

104. Ketkar KW. Performance and Profitability of Indian Banks in the post – reform period. The International Journal of Finance. 2008; 20(3): 4910 – 4929.

105. Khaki AR, Sangmi M. Financial Inclusion in Jammu & Kashmir: A Study on Banker's Initiatives. International Referred Research Journal. 2012; 3(4).

106. Khatri P, Ahuja Y. A Comparative Study of Customer Satisfaction in Indian Public Sector and Private Sector Banks. International Journal of Engineering and Management Science (IJEMS).2010; 1: 42-51.

107. Kochhar S. Speeding Financial Inclusion. Academic Foundation. New Delhi. 2009.

108. Kolloju N. Business Correspondent Model vis-à-vis Financial Inclusion in India: New practice of Banking to the Poor. International Journal of Scientific and Research Publications. 4(1).

109. Kumar AM, Rajesh R. Whether Today's Customers are satisfied? – A Study with Banks. Indian Journal of Marketing. 2009; 39(9): 56-62.

110. Kumar D. Performance of Banking through Credit-Deposit Ratio in Bihar: A Study of Last Decade. International Journal of Application or Innovation in Engineering & Management. 2013; 2(10): 210-218.

111. Kumar DP. The Upscalling Technology to Build Inclusive Financial System in India. Journal of Education and Policy Studies. 2010; 2(5).

112. Kumar J, Prajakta H. Expectation and Perception of Customers across the Public and Private Sector Banks: An Empirical Study of Selected Banks in North Gujarat. 2012; 1.

113. Kumar N, Verma P. Credit Deposit ratio and ownership structure in the Indian banking sector: an empirical analysis. Global Academic Society Journal: Social Science Insight. 2008; 1(4): 4-17.

114. Kumbhar VM. Service Quality Perception and Customer's Satisfaction in Internet Banking Service : A Case Study of Public Sector and Private Sector Banks. Cyber Literature Online Journal. 2011; 2(2): 21-30.

115. Kunjukunju, Benson. Reforms in Banking Sector and their Impact in Banking Services. South Asian Journal of Socio-political Studies. 2006; 7(1): 77-81.

116. Kuri P.K., and Laha A (2011) Determinants of Financial Inclusion: A Study of Some Selected Districts of West Bengal. Selected Works of Dr. Arindam Laha. http://works.bepress.com/arindam_laha/4

117. Lal, Roshan, Saluja Rajni (2012) "E-Banking: The Indian Scenario*'asia Pacific Journal of Marketing &Management Revie*w ISSN 2319-2836 Vol.1 (4), December (2012) Online available at indianresearchjournals.com.

118. *Lucy, M, Mboma (2011)'A*TM and Customer Satisfaction: A Case of the Banking Industry in Tanzania'.

119. Laha A, Kuri PK. Demand for and Supply of Financial Inclusion in India: An Inter-State Analysis. Elk Asia Pacific Journal of Finance & Risk Management. 2011; 1-14.

120. Lohani MB, Bhatia P. Assessment of Service Quality in Public and Private Sector Banks of India with Special Reference to Lucknow City. International Journal of Scientific and Research Publications. 2012; 2(10).

121. M.Mathi PG and Research Department of Commerce, Sri VidyaMandir Arts and Science College, Uthangarai, India - 636902 Received: 28 August 2014: Received in revised form 30 September 2014; Accepted 10 October 2014

122. Mia, Abdul Hannan & et al 'E-banking: Evolution, Status and Prospects *Management* Vol. 35 No. 1January-February, 2007 pp. 36-48.

123. Mohan, R. (2003 a), 'Transforming Indian Banking; In Search of Better Tomorrow; IBA Bulletin Vol.xxv, No.3, (March), pp. 50.

124. Mohan. Rakesh (2005 c)." Financial Sector Reforms in India: Policies and Performance Analysis, Economic and Political Weekly, pp. 105.

125. Moses, O., Nyesolu, & Ignatius, M., Ezeani, (2012) "ATM Security Using Fingerprint Biometric Identifier: An Investigative Study' (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 3, No.4, 2012.

126. Muniappan (2010) studied paradigm shift in banks from a regulator point of view in Indian Banking : Paradigm Shift, IBA Bulletin, No 24 -3.Singh (2003) analyzed profitability management of banks under the deregulated environment, 'Cooperative Perspective Vol.37, No.4, March 2003, pp. 61-81.

127. Malhotra AK. ATM on the Fence of Financial Inclusion in India. 2010. Available from: https://www.researchgate.net/publication/228309741_ATM_on_the_Fence_of _Fi nancial_Inclusion_in_India

128. Malhotra NK, Birks DF. Marketing Research: An applied approach (3rd Ed.), Prentice Hall, Incorporated. 2007.

129. Malik G. A Comparative Study on the Service Quality and Customer Satisfaction among Private and Public Banks in India. Pacific Business Review International. 2012; 4(3).

130. Mandal PC, Bhattacharya S. Customer Satisfaction in Indian Retail Banking: A Grounded Theory Approach. The Qualitative Report. 2013; 18(56): 1-21.

131. Massey J. Role of Financial Institutions in Financial Inclusion. FICCI's Banking & Finance Journal. 2010; (4).

132. Maurya RS, Bhat KA. Comparative Analysis of Private and Public Sector Banks in Punjab. Astitva International Journal of Commerce Management and Social Sciences. 2013; 2(3).

133. Mengi P. Customer satisfaction with Service quality: An empirical study of public and private sector banks. The IUP Journal of Management Research. 2009; 8(9): 7-17.

134. Mishra JK, Jain M. Constituent Dimensions of Customer Satisfaction: A Study of Nationalized and Private Banks. Prajnan-NIBM Pune. 2007; 35(4).

135. Mishra US, Mishra BB, Praharaj S, Mahapatra R. CRM in Banks: A Comparative Study of Public and Private Sectors in India. European Journal of Social Sciences. 2011; 24(2).

136. Mittal S, Jain R. Effect of IT based Services on Customer Satisfaction in Banking Industry. Prestige International Journal of Management and Research. 2010; 3(1): 7-15.

137. Mohan TTR, Ray SC. Comparing Performance of Public and Private Sector Banks: A Revenue Maximization Efficiency Approach. Economic and Political Weekly. 2004; 39(12): 1271-1276.

138. Mohan TTR, Ray SC. Productivity, Growth and Efficiency in Indian Banking – A Comparison of Public, Private and Foreign Banks. Economics Working Papers. Department of Economics-University of Connecticut. 2004; 27.

139. Moutinho L, Brownlie DT. Customer Satisfaction with Bank Services: A Multidimensional Space Analysis. The International Journal of Bank Marketing. 1989; (7).

140. Naidu MG. A study of Financial Performance of Reputed Public Bank in India During 2006 to 2010. Asia Pacific Journal of Marketing & Management Review. 2012; 1(3).

141. Olatokun, W., Michael, & Igbinedion L., Joyce (2009) 'The Adoption of Automatic Teller Machines in Nigeria: An Application of the Theory of Diffusion of Innovation' *Issues in Informing Science and Information Technolog*y Volume 6, 2009.

142. Pat, K.A. (2009), "Why Indian Banks are healthy in this Global Crisis?" Economic and Poltical Weekly, Vol. 44, No. 17, pp. 21-22.

143. Patel, Bhavin. Bhathawal, Pravin (2012) 'Case Study for Bank ATM Queuing Model? International Journal of Engineering Research and Applications (IJERA) ISSN: 2248-9622 www.ijera.com Vol. 2, Issue 5, September-October 2012, pp.1278-1284.

144. Prakash Nivedan (2012) "Banking and Technology IRJC International Journal of Marketing, Financial Services & Management Research Vol.1 Issue 7, July 2012, ISSN 2*277 3*622.

145. Premlatha, J. Ramola & Sharma Kumar Ajay (2012) "A study of the Factors Affecting Customer Satisfaction for the ATM Services in Vellure *Districy' International Journal of Marketing, Financial Ser*vice*s & M*arket Research Vol. No.-3 March 2012

146. SamwelKakuko Lopoyetum2, "A Study of Business Performance with Special Reference to Profitability and Viability Dimension-Uthamapalyam Urban Cooperative Bank, Then District," Cooperative Perspective, Vol.37, No.4, March 2005, pp. 61-81.

147. Shah, Mahmood, and Clarke E-banking Management: Issue-1, VO-II Solution and

148. Strategies Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue Hershey Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue Hershey 2008.

149. Shah, Mahmood, and Clarke "E-banking Management: Issue, Solution and Strategies Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue Hershey Information Science 2008 ISSN 1817-5090.

150. Shariq, Mohammed, Soofia Shariq, (2011) 'A Study Of ATM Usage in Banks in Lucknow I.J.E.M.S., VOL. 2(1) - 2011: 47 – 53 ISSN 2229 -600X.

151. Sheeba, R., Kalarani B.J., Parimala (2015) 'A Study on Customers' Perception about the Usage of E-Corner Banking Services Journal of Exclusive Management Science - January 2015 - Vol 4 Issue 1 - ISSN 2277 - 5684.

152. Siddik, M. Mohammed, (2012) 'A Study On E-Banking Services In India-With Special Reference To ATM Services Journal of Exclusive Management Science - March 2012-Vol 1 Issue 2 - ISSN 2277 - 5684.

153. Singh, Sultan, Komal, (2009) *Business Intelligence Journal* Business *Intelligence Journal - August, 2009 Vol. 2 No. 2.*

154. Singla HK (2003), in his paper, financial performance of banks in India, Sharma, Meera(2003), "A Cross-country Study of Bank Failure Resolution", Prajnan: Journal of Social and Management Sciences, Vol. 29, No. 1, pp. 7-27.

155. Verma, Kanika (2014) "Measuring Customer Satisfaction Towards Atm Services - A Comparative Study Of Union Bank Of India And Yes Bank' Abhinav National Monthly Refereed Journal of Research in *Commerce &Management,* Abhinav Publication, Volume 3, Issue 7 (July, 2014).

156. Vikas Trivedi (2008 b) H.R Perspectives in Indian Banking System, The Indian Journal of Commerce Vol-61 No. 1, pp. 67

GOVERNMENT REPORTS & PUBLICATIONS

157. Annual Economic Survey

158. Annual Report of Indian Banker's Association

159. Finance India

160. IBA Bulletin Special Issue on Indian banking

161. RBI Annual Reports.

162. SBI's Annual Report 2015-16

163. Report of Narsimhan Committee (1991, 1998)

164. Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act-2002.

165. The oxford Hand Book of Banking

166. Trend and Progress of Indian Banking-RBI

167. Various Publications of Central, State and local Government

168. IBA Bulletin Special Annual issue -2010

169. Banking Flag

170. Banking Chintan Anuchintan (Business Journal)

171. Banks & Economic Update (OBC)

172. Bank Quest (Journal of the Indian Institute of Bankers)

173. National Crime Record Bureau Annual report

174. Commerce

175. NETINDIAN News Network, Mumbai

176. Times Of India, June 6,2012

177. Times Of India , October, 28, 2016

178. Times Of India , November, 25, 2016

179. Indian Express, March, 4, 2016

180. Economic Political Weekly

JOURNALS, MAGAZINES etc.

181. I.B.A Bulletin

182. Kurukshetra Magazines of Various Banks

183. The Economics Times

184. The Financial Express

185. Trends and Progress of Indian Banking, RBI Report 2016

186. The Hindu

187. Yozna