CHAPTER - 2
LITERATURE AND RELATED INFORMATION

2.1 Introduction

An attempt is made to present the literature related to the topic of research. This second chapter deals with review of literature related to ATM card holders, ATMs, service quality of ATMs and awareness of ATMs in order to strengthen the present study. Organizations are aware that service quality and awareness; provide strategic competitiveness in a dynamic business environment. The researcher gathered the various information which was published in the Newspapers also taken as reviews because these kind of information also tunings of research ideas in the field of research. These kinds of data are very much helpful to make effective comparisons between two events. The following are the various literatures that were reviewed in the present study.

2.2 ATM Card holders

John P. Caskey and Gordon H. Sellon (1994)\(^1\), concluded that ATM cards have begun to turn the corner of consumer and merchant acceptance. ATM transactions have increased rapidly in recent years, stimulated in part by a rise in the number of retail locations accepting ATM cards as a means of payment. This study suggested that ATM card was more likely to grow rapidly where consumers found it more convenient than other payment options and where merchants found it cost effective. Moreover, they also added that those consumers without full access to existing payment methods may find ATM cards particularly attractive. Usage of ATM cards among the merchants as well among the common people is increasing day by day in almost all the activities of the banks. In this study, the researcher has made an attempt as how far the rural people of Salem Town are aware of using ATMs for their banking activities.

Mustafa Ege Yazgan and Hakan Yilmazkuday (2007)\(^2\), analyzed the effects of credit and debit cards on the currency in circulation. They use monthly data obtained from an interbank institution that had kept the statistics of all credit and debit cards usage of a small open economy, Turkey for the period over 2002M1-
2006M10. They have found out that an increase in the usage of credit and debit cards had led to a decrease in the currency demand. Moreover, the usage of the debit cards had a bigger effect on the money demand compared to the usage of the credit cards. They have also found out that the effect of credit cards was mostly through purchases and the effect of debit cards was mostly through withdrawals. Utilization and usage of debit cards were more when compared to the usage of credit cards. In the present study, the researcher had made an attempt to find the increased percentage of cardholders per ATM for the years 2011 – 2013 all the Districts of Tamil Nadu.

Kari Takala and Matti Viren (2007), examined the role of cash used in the development of payment media. The basic trends of change in payment media were scrutinized using European data. Although cash still dominates in small retail payments, there has been a definite shift towards electronic payments in large purchases and payment of wages and state benefits. At the same time, the distribution of cash has been moving from bank branches into ATMs. They have focused the role of ATMs and ATM networks in dispensing cash. They have stated that ATMs have a very different effect on banks and consumers, which made it difficult to predict future developments in ATM networks.

The number of ATMs has increased rapidly, but there are signs of saturation. Moreover, the number of ATMs is not independent of the overall usage of cash in society. As for the use of cash is concerned, it depends on the choices that are made with respect to the ATMs, but demand for cash appears to be continuing to grow in absolute terms. They have recommended that in the future, things may change if the banking sector moves towards a system where the profitability of all individual activities and products is more systematically monitored. Electronic payments not only encouraged the people for their purchases but also in the payment of wages and benefits also.

Devikala P (2007), revealed that ATM cards are gaining popularity among the people in Erode. She has revealed that ATM is one of the leading banking services in Erode. Its popularity is growing in India and other countries also. She has concluded that future of ATMs in India is great with customers opting for more use
of services because of convenience and less time involved in conducting transactions. She has suggested that the number of ATM centers has to be increased in commercial areas. She has also recommended the remedial measures should be taken by the banks to overcome problems like card deblocking and power failures occurring during the peak hours; She has insisted on the necessity of UTI Bank’s ATM advertisement, concentration on improving the balance amount and promptness and limit for withdrawal of cash. ATM, an advanced technology in banking is growing up not only in Erode but also in most of the villages, towns and cities. In the present study, the researcher has found out that convenience of ATMs as a predominant factor which is influencing the ATMs.

Dan Lockton, David Harrison and Neville A. Stanton (2010)\(^5\), stated that product and system design have influenced user behavior and offered potentials for improving performance and reducing user error. They have added that a little guidance was available at the concept generation stage for design teams briefed with influencing user behavior. Their study presented the Design with Intent Method, an innovation tool for designers working in that area, illustrated via application to everyday human-technology interaction problem and reducing the likelihood of a customer leaving his or her card in an automatic teller machine.

And the example application resulted in a range of feasible design concepts which were comparable to existing developments in ATM design, demonstrating that the method has potential for development and application as part of a user-centered design process. They studied the practical effects of designs developed both technologically and in human factors terms and taken the most important test of the method’s utility as a design tool. The product and the system design have an impact on the user behavior and are very helpful in reducing the user error.

Daily Thanthi (2012)\(^6\), (a daily vernacular newspaper) stated that ATMs are introduced in order to reduce the workload of banks. Missing of ATM cards, theft, sometimes getting caught inside the ATMs was the problems that are faced by the users while using ATMs. In order to overcome these inevitable problems, developments have made at ATMs. It was stated without using the ATM card; by using thumb impression, birth date and password, one can withdraw money from
ATMs. These ATMs are designed by Okah Keyrit banks, in such a way that ATMs reduces the work burden on the bank employees. It is also used where natural disasters are occurring very often like Japan, Indonesia and other countries. Japan has started 10 branches and 2 mobile ATMs from September onwards using thumb impression method. This technical development in ATM may be used throughout the world in future. Due to new technological development, the work burden of the banks has reduced a lot.

2.3 ATMs

James J. McAndrews (1998)\(^7\), evaluated the Pros and Cons of the surcharges entailed both benefits and costs for ATM owners, consumers, banks and ATM networks. The primary benefit of surcharges was the potential to lead to a better match between the supply of ATM locations and customer demand for remote access to their bank accounts. ATM surcharges have imposed direct costs on consumers and might have long-term consequences on transaction volume and banking competition.

He has added that surcharges encouraged the deployment of ATMs in areas that are too expensive for interchange fees such as airports, casinos, football stadiums and ski resorts. He has found out that ATM installations have increased since surcharges were permitted in 1996. Indeed, from 1996 to 1997, the number of ATMs in United States has increased 18.5 percent, the fastest rate of growth in fifteen years. At the same time, the number of transactions per machine fell rapidly, indicating that the number of ATMs had grown faster than the total number of transactions.

Thus, ATM deployers found it profitable to continue to deploy ATMs even though the number of transactions per ATM was lower than in previous years. He has found out that this fact was consistent with the hypothesis that surcharges allowed machines to be placed in higher cost and lower volume locations. In future, if the surcharges allowed machines replaced at a lower cost, lower volume locations and creating awareness among the people of the USA, would definitely increase the number of transactions per ATM machine as in the same way of increased installation of machines.
Robert E. Litan (1999)\(^8\), stated that while the number of ATMs continues to grow, the average number of monthly transactions per machine has been slipping: It peaked in 1992 at almost 7,000 but, by 1997 had fallen to 5,500. He has proved that this disparity between the growth of the number of machines and the shrinkage in average transaction volume per machine means that the newer machines are bringing down the average use of ATMs.

They have given convenience to consumers by enabling them to make deposits and obtain cash among other functions from a much wider variety of locations and in a more convenient fashion than ever before. He added that there is only limited economic incentive to deploy ATMs only in locations with large amounts of traffic, typically on the premises of banks themselves. Moreover, surcharge prohibitions deprive financial institutions of the economic incentive to maintain machines in more convenient, off-premise locations. The predictable result will be fewer machines than otherwise and less convenience. In future, if the machines are installed in more convenient crowded places and outside the premises also they would surely increase the average number of monthly transactions per machine.

Robin A. Prager (2001)\(^9\), revealed that effective from April 1, 1996, the Cirrus and Plus national ATM networks modified their operating rules to allow ATM owners to impose surcharges on other banks’ customers who used their ATMs. Since 1996, surcharging has become widespread and has attracted a great deal of opposition. Among other things, surcharge opponents argue that the imposition of surcharges would cause customers to shift their deposits away from small banks that own few ATMs towards large banks that own extensive network of ATMs.

Empirical evidence was emphasized regarding the effects of surcharges on small banks, deposit market shares and profitability. He added that large banking organizations might need more time to learn how to effectively use surcharges as a strategic tool to attract deposits away from their smaller rivals. Thus, the long-term effects of surcharging on small banking organizations may differ from the short term effects. The policy makers are advised to monitor the situation then and there. If
large scale banking organizations take steps for the effective use of surcharges as a strategic tool means, it will surely attract more deposits.

Nadia Massoud, Anthony Saunders and Barry Scholnick (2003)\textsuperscript{10}, defined a special data-base and tested the effect of ATM surcharges on large versus small banks. They have revealed that due to ATM surcharges, most of the bank customers are switching their accounts from smaller banks to larger banks. Moreover, ATM surcharges have raised the market share of deposits of larger banks when compared to the market share of the smaller banks, had a positive impact on the profitability of larger banks than the profitability of smaller banks and the customer relationship was more positive in larger banks than the customer relationship of smaller banks.

They have concluded that ATM surcharges had a greater impact on larger banks than the smaller banks. Hence, ATM surcharges can be reduced to a greater extent, so that even the smallest banks can have a positive impact on the profitability like larger banks and can retain the existing customers from switching over their accounts from smaller banks to larger banks.

Mohammad Shamsuddoha, Chowdhury. T and Ahsan (2003)\textsuperscript{11}, mentioned that over the last 10 years, the banking industry in Bangladesh has improved a lot than before. They have interviewed 100 respondents for their study. They have found that some of the multinational and newly started commercial banks have started adopting new and modern technologies like Automated Teller Machine due to changes in the marketing field as well as in the banking field. ATMs are used for various purposes and are mainly utilized by bank customers. Since ATMs serves multi- purposes, people would definitely make use of the new and modern technologies like ATMs to a greater extent of their banking activities not only at present but in the future also.

James J. M C Andrews (2003)\textsuperscript{12}, stated that Automated Teller Machines have changed the relationship between bankers and their depositors. He mainly focused on the sharing of ATM facilities as well as pricing on the use of the ATMs. He has concluded that ATM networks had created some of the most challenging pricing problems that are faced by the industrial economists. Though ATM networks
had created the most challenging pricing problems, the banks should take necessary steps to minimize those problems and try to have a mutual relationship between bankers and their depositors.

Elizabeth W. Croft and Barbara J. Spencer (2003)\textsuperscript{13}, focused on spatial models of ATM networks to find out the implications for banks and non-banks of interchange fees, foreign fees and surcharges for the transactions which are carried on by customers other than their own ATMs. They have found out that similar sized banks had an agreement as not to have any surcharges between a bank and a non-bank. Sometimes a high ATM fees have been charged for the high cost of teller transactions.

Larger charter members enjoy most of the network benefits because of its lowest fees charged by the ATMs. An interchange fee of $.75 remains unchanged for the past 10 years in their areas when compared to the changes in the interchange fee in other areas. Unchanged of interchange fee over 10 years will induce the customers to utilize the ATMs for all their banking services. They have found out that similar size banks would agree not to surcharge, but such an agreement was not possible between a bank and a non-bank. In particular, the $.75 interchange fee remained unchanged for over 10 years, despite rising charges in other areas. Banks should try to reduce the interchange fee so that they increase the number of transactions per machine to a larger extent.

ATM Network, ATM Machines, Benefits of Owning an ATM: An ATM Buyer’s Guide (2008)\textsuperscript{14}, defined as how the ATMs work, what is the role of the merchant and what is the role of the customer. This guide states that when a person owns an ATM means, guidelines are stated as how an owner of an ATM has to invest money for installing it and how to set the surcharge amount for which the customers have to pay it. Moreover, the advantages of owning an ATM and various rules and regulations about the usage of ATM Networks and ATMs are also given clearly. If a person wants to own an ATM then, he has to follow the rules and regulations for owning as well as he should be aware of up to date details ATMs and its benefits.
Wole Micha Olatokun and Louisa Joyce Igbinedion (2009)\textsuperscript{15}, pointed out the attributes of the theory of diffusion empirically as the target innovation using ATMs. The study had been done using 600 respondents in Jos, Plateau State, Nigeria. They have concluded that the attitudinal dispositions had significantly influenced the use of Automated Teller Machines in Nigeria. Attitudinal dispositions have an impact on the usage of Automated Teller Machines.

Banumathi Arunachalam (2010)\textsuperscript{16}, mentioned that the problems and the precautionary measures to be taken to overcome the problems of the customers while withdrawing the money from the banks such as when a part of the money was coming out while withdrawing, when PIN number was forgotten, when an ATM card got struck into the ATM and when an ATM magnetic stripe got scraped. The concerned bank should create awareness about the usage of ATMs and the precautionary measures to be taken while unexpected problem arises in the ATMs.

Richa Tuli, Abhijeet Khatri and Anita Yadav (2012)\textsuperscript{17}, described that the Automated Teller Machine is a modern technology, which accepts deposits, issues withdrawals, transfers money between accounts and collect bills. Customers using the ATMs and those who have an account in SBI and ICICI bank in the Sirsa City (Haryana, India) were chosen. They have found out the differences which are prevailing between the attitude of customers of ICICI and SBI bank towards ATM activities. They have found out that Convenience was a major factor which has influenced the customers of both ICICI Bank and SBI bank.

Easy availability of ATMs was the second factor which has influenced the use of ATMs by the customers. They have found out the problems faced by the customers of ICICI and SBI ATMs. The customers are using the ATMs of ICICI bank rather than the ATMs of SBI to a greater extent because of its security to its customers. They have also concluded that customers were receiving old currency notes from SBI ATMs rather than in ICICI ATMs. Moreover, nearly 21\% of the customers of ICICI bank faced a major problem of running out of cash in the ATMs and 18\% of the customers faced the problem of ATMs out of order. Hence, ICICI Bank should keep an eye on the provision of cash always in the ATMs and should
take necessary steps to rectify the problems immediately whenever any problem arises in the ATMs.

The Hindu (2012), stated that mentioned about the armed loot of a bank branch in Perungudi. This branch didn’t have a proper CCTV and security system. So, the Police Commissioners and Superintendents of Police in major cities and towns had meetings with bankers as well as traders to ensure that all of them should install security mechanisms in their premises. There is a need to keep abreast and ahead of thieves and consequently to upgrade the systems when more sophisticated devices hit the market. So, the bank robbery has brought the focus back to security. Now, the industries offer a wide range of security devices and options. All the banks must have a proper CCTV and a tight security system so as to avoid looting of ATM banks in future.

Daily Thanthi (2012), stated that by reducing ATM expenses banks can save Rs. 3,000 Crores yearly. If steps have been taken to reduce the expenses of ATM’s electricity, rent and manage expense, the public sector expenses can be reduced to Rs. 3,000 crores. Out of 60,153 ATM branches, 41.5% are managed by Public Sector Banks. In order to reduce the expenses of ATM, instead of 150 businesses it can be increased to 200 so that 30% of the expenses can be reduced. By giving permission to advertise in ATMs, the expenses can be reduced from 20% to 30%. Discussions are going on in the Government in this regard. The Government should take necessary steps to increase the number branches of ATMs by reducing its expenses on electricity, rent and management.

Daily Thanthi (2012), explained the technical developments in the banking industry. In olden days people have to put ½ day leave in the office so as to stand in a line to get the amount. But nowadays whenever, wherever we require, we can withdraw money with the help of ATMs. Different parts of the ATMs, usages of ATMs, working conditions and uses of ATMs are explained in a detailed manner. Usage of ATMs can be increased by creating awareness of ATM to the public in a detailed manner.
2.4 Service Quality

Fumiko Hayashi, Richard Sullivan and Stuart E. Weiner (2003)\(^2\) stated in a guide about the current structure of the ATMs and debit card industry and highlighted an important economic and public policy issues. They have suggested that national networks have gained its importance, but operate alongside many regional networks. They have added that networks have expanded during the last 20 years, yielding economies of scale for the networks and increased convenience for ATM customers.

Installation of off-premise ATMs in recent years not only improved consumer’s convenience, but also expanded business opportunities for non-bank ATM operators as well as for ATM networks. There were 3, 52,000 ATMs in the United States nearly five times the number of banking offices. They have stated that because of consolidation and the lifting of restrictions on inter-state banking, the ATM networks of many banks were larger and stretched across a greater geographical area. They added that ATM services have become more accessible and ATMs has become the most convenient form of banking. ATM services in the United States have been expanded to a greater extent due to the installation of more number of ATMs at the most convenient public places.

Heli Snellman and Matti Viren (2006)\(^2\) dealt with the issue of how the market structure in banking affected the choice of the means of payment and the demand for cash. The analysis was based on a simple spatial transaction model in which banks' optimization problem was solved. The solution quite clearly showed that monopoly banks have an incentive to restrict the number of ATMs to a minimum. More generally, the number of ATMs depended on competitiveness in the banking sector. The predictions of the theoretical analysis were tested using a panel data from 20 countries for the period 1988-2003.

Empirical analysis showed that there was strong and robust relationship between the number of ATM networks and the number of ATMs (in relation to populations). Moreover, it showed that the demand for cash depends on both the number of ATMs, ATM networks and the popularity of other means of payment. Thus, the use of cash in the transaction demand framework has changed the market
structure and technical environment. Banks should organize the distribution of cash in such a way that the customers should not switch over to other means of payment.

David Bounie and Abel François (2006)\textsuperscript{23}, observed that exploiting a unique and original dataset of 11,945 payments made from March to May 2005 have estimated the determinants of the probability of a transaction being paid by cash, check or bank card at the point of sale. They have found out that transaction characteristics had a strong impact on the probability of a transaction being paid by cash, check or bank card. They found that the transaction size influences the probability of it being paid by one of the three payment instruments. The larger a transaction, the lower the probability of it being paid by cash and the higher the probability of it being paid by check or bank card.

Moreover, the estimation results confirmed the non-linearity assumption about the effect of transaction size on the probability of payment by cash, bank card or check. Besides the well-known effect of transaction size, their estimation sheds new light on the effects of further transaction characteristics on payments. Their results showed that these characteristics influence payment patterns. They have found that there is a strong evidence of specialization effect on the use of payment instruments according to the type of good spending place and contact. Nowadays, payment by cash, check or bank cards have a greater impact on banking transactions.

Prabhakar Rajkumar. K (2007)\textsuperscript{24}, stated in his research article that the farmers are enjoying the following benefits through Kissan credit card (Farmers credit card) are needs, credit requirements of cultivation of crops for the whole year; assured availability of credit to the farmers whenever credit is needed; Adequate quantum of credit is made available to the farmers; Provides flexibility to the farmers to draw cash from a branch other than issuing branch and to buy inputs from any supplier of his choice; Reduction in quantum of interest to the farmer due to frequent withdrawal and repayment of loans; Transaction cost of the farmer for availing the loan from the bank is reduced.

Prabhakar Rajkumar. K (2008)\textsuperscript{25}, found in his article that, the main reason for holding account only in SBI is for its efficient service. In addition, the author has
found out the relationship between the number of years of holding account and the frequency of visits. He has found out that there is a significant difference in the factors of importance based on preference and also there is a significant difference in the satisfaction level of customers’ satisfaction. Finally, he suggested that the customers are aware of banks’ policies, but the major constraint was that they are unaware about the details of the policies and the benefit and use of going in for such policies.

Jocelyn Donze and Isabelle Dubec (2009)\textsuperscript{36}, revealed in their study that in Australia, the interchange fees on shared ATM transactions were removed and replaced by a fee directly sent and received by the ATM owner ("direct charging scheme"). They have developed a model to study how the entry of Independent ATM Deployers (IADS) affected welfare under the direct charging scheme. Paradoxically, they have stated that the entry of IADS benefit banks also. They were so good for consumers if they sufficiently value the ATMs deployed by the independent deployers.

They have shown that the entry of independent ATM deployers, while possibly leaving consumers slightly worse off, permits to limit banks’ use of ATM deployment as a way to steal depositors from competitors. Therefore, they have suggested that encouraging the existence of independent deployers on the ATM market could be an interesting way to reestablish banks’ profitability under direct charging without hurting consumers too much. By adopting direct charging scheme, ATM deployers’ welfare would not be affected much.

Muhammad Asif Khan \((2010)\textsuperscript{27}, \) investigated in his study about the significant dimensions of Automated Teller Machine service quality and its effect on customer satisfaction. Questionnaire was used to collect the data from a convenience sample of 500 customers of multinational and national banks. Regression results indicated that convenience, efficient operation, security and privacy, reliability and responsiveness are significant dimensions of ATM services quality and that ATM service quality positively and significantly contributed towards customer satisfaction. The rapid diffusion of the introduction and diffusion of information and telecommunication technologies (ICT) in the Pakistani banking sector provides a
platform to use innovative technologies to enhance operational efficiency and quality of service to attain and retain customers.

The rapid growth in the use of ATMs in Pakistan offers opportunities to banks to use customers’ passion for this innovative service for strategic advantage. The banks should proactively monitor customers’ preferences with regard to use of this delivery channel for effective response. Banks should focus on important aspects of security and privacy as well as the efficient operation of ATMs. Banks should also augment and diversify their offerings through ATMs and used this medium to build a strong and sustained relationship with customers. Introduction of new technologies in the Pakistani banking sector enhanced operational efficiency and better service quality in order to attain and retain customers.

Arun Kumar (2010)\textsuperscript{28}, stated about C. Kamalapriya, Madurai, has told her life experiences when her nearby two ATMs were not working when she was in need of money. She had added that she had learnt a lesson from that day onwards as how to save the money and how to manage her family by reducing the unwanted expenses. C.Kamalapriya’s life experience has taught the importance of money savings in order to meet the emergency needs.

Gautam Gowrisankaran (2011)\textsuperscript{29}, estimated that a structural equilibrium model of the Automatic Teller Machine should be used to evaluate the implications of regulating ATM surcharges. The study resulted in three principal outputs. Firstly, it provided evidence on the impact of ATM surcharges on outcomes and surplus levels in the market for ATMs. Moreover, it provided evidence on the nature of excess entry into other differentiated products oligopoly markets. Secondly, it showed that how one could identify consumer utility and firm cost parameters using data on firm actual and potential entry. Finally, it showed that the quasi–likelihood method can be used to feasibly estimate the parameters of structural game theoretic models without solving for the equilibrium of the games. ATM surcharges have an impact on the outcomes and surplus levels in the market for ATMs.

Manvinder Singh Pahwa & Karunesh Saxena (2011)\textsuperscript{30}, analyzed the satisfaction levels of the customers of ICICI Bank holding ATM cards in Udaipur city with respect to some aspects such as the service quality of ATM personnel,
location, sufficient number of ATMs in city, regularity in the working of ATMs, their impact on overall performance and their opinions on various other related issues. This study is a type of exploratory research using random sampling technique. As the samples were selected on a random basis and it may represent the whole population and therefore it may prove to be important for the ICICI Bank management to consider the recommendations with due care for being in a competitive position for better customer service.

The study concluded that the customers are highly satisfied with the availability of cash in the ATMs and the quality of currency notes in the ATMs being ranked 1st and 2nd. The ATM customers are equally satisfied with the promptness of delivery of ATM cards and correctness of cash withdrawn from the ATMs. The features like security-safety-privacy and behavior of ATM personal we’re just correct. The respondents were not satisfied with the availability of complaint book, location aspect and number of ATMs in the city. They have made strong recommendations regarding these points when they were asked to do so. Some customers strongly commented on the non-availability of power back up in case of breakdown.

Most of the customers were found to have knowledge of other features of ATMs also. The most important thing which came out of the study was that the Weighted Average Score of the overall performance of ICICI Bank ATM came to be 3.43 which is more than the neutral (i.e. 3). But this is just marginally higher. The ICICI Bank being the largest private sector bank must make its customer satisfaction base stronger in order to sustain in the world of competition. The management of ICICI Bank should seriously consider the recommendations made by their customers and take all necessary steps to follow the same. ICICI Bank ATM is providing good quality, currency notes and providing cash whenever the customer is withdrawing money from the ATMs. But, it has to take due care in supplying power back up in the case of breakdowns in the future.

Vijay Kumbhar (2011)\textsuperscript{31}, examined the factors affecting customers' satisfaction, an empirical investigation of ATM service. This empirical study focused on identifying key factors that had influenced customers’ satisfaction in
ATM service provided by public and private sector banks. Primary data were collected using schedule from March to November 2010. Results of factor analysis, correlation and regression analysis showed that the cost effectiveness, easy to use and secure and responsiveness in ATM service were the most important factors in customer satisfaction.

The result of data analysis and hypothesis tests indicated that a mean score of perception relating to various service quality aspects is ranging between 2.5 to 4.2 and other than cost effects of ATM service perception about remaining service quality dimensions is approximately same in public and private sector banks. The study showed that the cost effectiveness of ATM service was a core service quality dimension and it was significantly affecting overall customer satisfaction in ATM service provided by commercial banks. However, result of factor analysis indicated that cost effective, easy to use and security & responsiveness influenced customer satisfaction at 36% variance. Therefore, banks should concentrate their efforts on these dimensions to offer better ATM service to satisfy their customers.

Pijush Chattopadhyag (2012)\textsuperscript{32}, evaluated the impact of the ATMs on customer services which leads to better customer satisfaction. He has analyzed the relationship between demographic variable and preference to use the ATMs. A structured questionnaire was used to collect the data from a convenience sample of 300 customers from three sample co-operative banks in Pune city. Frequency and percentage analysis and chi-square tests were applied for data analysis and interpretation.

The study revealed that a majority of the customers are highly satisfied with ATM services and view them as essential services. The customers prefer ATMs with time and cost utility which provided efficient services. Future researches can be carried on in enhancing bank profitability through delivery channels, facing competition through technology products, attitude of bank employees to technology implementation and increasing the efficiency of bank staff through technology implementation. ATMs in Pune City provide good quality services to their customers and also provide enough satisfaction.
Fawzi Al Sawalqa (2012)\textsuperscript{33}, revealed that on the survey responses of 132 users, only privacy and security contribute significantly to the customers’ financial needs. Moreover, the demographic characteristics of users make no differences in the financial needs satisfaction of ATMs users. He had suggested that the Jordanian banks should put more emphasis on the different aspects of privacy and security so as to increase the number of ATMs usage and to introduce a good training to ATM users. Jordanian Banks should take necessary steps in providing security and privacy to its customers so that their financial needs can be satisfied.

Chinedu N. Ogbuji, Chima B. Onuoha and Emeka E. Izogo (2012)\textsuperscript{34}, investigated the negative effects of the ATMs in delivering banking services electronically in Nigeria. Using a sample of 600 respondents selected from two states of the federation (Lagos and Anambra) and they have analyzed. The hypotheses were formulated with chi-square and it was found that results were consistent with the propositions made. Moreover, it was recommended that banks should strive to increase their security layers to subvert the tricks of web scammers, limit the amount which customers may be allowed to withdraw at a time and provide electronic alerts to customers’ phone for all transactions carried out on their bank accounts through ATMs, co-operate instead of competing in stemming the ATM fraud menace and educate customers on the need to safeguard their PINs.

Moreover, the Government was encouraged to promulgate laws that would guide e-business including ATMs in Nigeria, provide employment, check the indiscriminate issuance of ATM cards by banks and so on. However, the customers were advised to; avoid replying unsolicited mails and text messages, not to compromise their PINs, maintain a separate account which was not placed under ATMs if they were given to impulsive expenditure. Nigerian banks should be vigilant in providing security to its users in order to avoid ATM frauds and its Government also should encourage in guiding e-business in the country.

Haruna Issahaku (2013)\textsuperscript{35}, investigated in his study about the experiences of Ghana Commercial Bank (GCB) and Barclays Bank customers with Automatic Teller Machines in the Tamale Metropolis. Primary data were collected in 2011 from a random sample of 80 ATM users by means of a semi-structured
questionnaire. The data were analyzed using descriptive statistics and multiple regression analysis. The study explored the experiences of GCB and Barclays Bank customers with ATMs. The study revealed the main reasons for customers using ATMs were convenience, speed, security, reliability and cost of ATM services. Managers of these banks must take these reasons into consideration in designing and implementing ATM based policy reforms. Machine running out of cash, link failure and a long time in dispensing cash was found to be the most occurring ATM challenges. The study shows that the ATM challenges were perceived to occur more often with GCB ATMs than in Barclays bank ATMs.

The banks were advised to take steps to address these problems in order to attract and retain ATM customers. The mean customer satisfaction level was 61.8% and 69.4% respectively for GCB and Barclays bank. Consequently, the study established a significant difference in the mean customer satisfaction among customers of GCB and Barclays bank in the Tamale metropolis in terms of ATM usage. Moreover, customers of Barclays bank rated their satisfaction from ATM use higher than GCB customers did.

The satisfaction levels, though above average could be improved by both banks. The study found out the significant ATM customer satisfaction parameters which are prompted the issue of the card, service quality of ATM personnel, quality of the notes, machine performance, safety and security, cost effectiveness and service quality of ATM personnel. Based on the beta values, the three most important determinants of satisfaction were found to be prompted of issue of card, safety and security, and cost effectiveness. These factors must be given priority by banks in delivering ATM services to customers. GCB banks should take the required steps to satisfy the needs and requirements of its customers.

Clare Noone (2013)36, reported in her study that Automated Teller Machine networks are key components of the payment system. Number of competing theoretical models was used in the study to examine the fees associated with ATM transactions. These models showed that the elimination of interchange fees would cause a one-for-one increase in direct fees and a one-for-one fall in foreign fees, leaving the price of foreign ATM transactions unchanged in the short run. Following
the reforms of the Australian ATM networks in March 2009, the eliminated interchange fees, the total price of foreign ATM transactions remain unchanged, but the adjustment in foreign and direct fees was almost twice as large as the eliminated interchange fee. Moreover, various ATM usage costs were explicitly incorporated into existing models and the number of banks modelled was increased to three from the usual two. The study concluded that the shift towards direct charging have contributed to the change in behaviour, even if the price of foreign transactions remained unchanged. Payment systems play a major role in the promotion of ATM networks.

2.5 Awareness

Karuna A/L Kumegan (2004)\textsuperscript{37}, emphasized the awareness level of smart ATM card users about the multi function of the card and identified the attributes that has influenced the differences of attitude between the active and inactive smart ATM cardholders from a sample of 300 respondents. He has found out that the awareness level of the multi function card was low. Moreover, the study also validated that attitude has influenced the usage level as dictated by the multi attitude model. The study suggested that the full utilization of the newly introduced smart ATM card is crucial for the financial institutions to capitalize their investment. The study stated that they could help the financial institutions to segment their target market, retain their customers and strengthen the relationship while capitalizing the new technology towards the profitability of the company. Awareness about the smart cards is necessary so that the public can make use of smart ATM card multi functions to their utmost.

Ari Hyytinen & Tuomas Takalo (2008)\textsuperscript{38}, described that in the market for payment media, some consumers use only one medium when paying for their point-of-sale transactions while others use many. The study used multiple payment media by employing data on young Finnish consumers. It turned out that the use of multiple payment media was closely related to the decision to use debit card in addition to cash. However, there was no straight forward link from awareness to debit use.
Those who have used only one payment method used cash irrespective of their awareness and while awareness induced a shift towards using many payment methods. The shift means that some begin to use debit as their primary method of paying whereas the others begin to use it as their secondary method. The effect of awareness of the probability of using multiple payment media was quantitatively large, especially if the potential endogeneity of consumer awareness is controlled.

Limited participation in the market for modern payment media could have important implications for individual welfare, especially if individuals had no other access to banking services. The study implied that holding income, wealth, banking relationship and other consumer characteristics constant, making consumers better informed could accelerate the adoption of new payment media such as electronic money and mobile payments. The study also suggested that increases in consumer awareness might have been underlying the rise of debit card use around the world. Beyond this, the implications of their findings for the payment media industry were less clear-cut.

As consumer multi homing intensifies platform competition over merchants, increasing consumer awareness may be a two-edged sword for the payment media industry. Each issuer can have an incentive to increase consumer awareness of its own preferred medium, but the industry as a whole might be better off with a limited number of consumers who used multiple payment media. To the extent the perceived failure of competition in the market for payment media is due to lack of information. Their results also suggested in improving consumer awareness could be a remedy. However, it was well known that improved transparency could also facilitate collusive behaviour.

Although the positive effect of consumer awareness on use of payment media suggested that allocating more resources on marketing new payment media might increase their adoption rates, a caveat should be borne in mind. We are unfortunately unable to identify whether consumer awareness reflects the consumers’ exposure to informative advertising or persuasive advertising or something else. We cannot, therefore tell what kind of information provision or advertising would boost the demand for payment media. Awareness can be created
by conducting workshops through pamphlets being a part of the educational system and by conducting various seminars.

Antony Raj (2010)\textsuperscript{39}, explained the usage of smart cards by the innocent people of the Kani Scheduled people and the services rendered by the Indian Overseas Bank with the help of an individual young guy. Moreover, he had stated about the services of the bank and the bank Manager Rashid Khan about his Special Mission. Due to their effort, the tribal people of Kani started saving their money, which they are earning from the forest. Like Indian Overseas Bank, the other banks also should create awareness about the usage of smart cards among the other scheduled people.

Dharmesh Motwani & Devendra Shrimali (2012)\textsuperscript{60}, stated that their research study was based on descriptive research design. Questionnaire was made and data was collected from bank customers. The study highlighted that the ATM services mostly preferred by customers as well as the awareness level & satisfaction of customers regarding ATM services. The study concluded that majority of the customers were aware of cash withdrawal service and ranks first while using the ATMs. Balance enquiry service ranked in the second position on awareness scale.

There was no significant difference between the satisfaction level of public & private bank customers towards ATM services. The awareness level of ATM services was affected by demographics of customers. Moreover, the study has found out that most of the people are using their ATMs for withdrawal of cash and to ensure the available balance in their accounts rather than for other purposes. But, the researcher of this study deals with finding out the various service quality acquired by the SBI ATM card holders in Salem town. They have felt that they are feeling convenient in withdrawing the money from the ATMs.

Daily Thanthi (a vernacular newspaper) (2012)\textsuperscript{11}, mentioned that stated that number of ATMs as well as working conditions of ATMs has increased to a greater extent. In March 2010, there were 60,000 ATMs. In 2011, it has increased to 75,000 ATMs. In 2012, it has increased nearly to 1 Lakh. Due to increase in the number of ATMs and working conditions of ATMs, people got the awareness of investing their money in share markets.
Daily Thanthi (2012)\textsuperscript{42}, mentioned about Sanspary ATM, London, Capital city of England while withdrawing money people got twice the amount in the ATM which they have stated in the receipt. Due to technical default, most of the people who withdrew at the beginning got more amounts and felt very happy. After the bank employees rectified the technical problem, the problem got solved. But the bank could not identify the people who took double the amount because only the actual withdrawal amount alone has got registered. Hence, bank officials must be alert in finding out the technical errors in advance so as to avoid a greater loss to the banks which are arising due to technical defects.

Daily Thanthi (2012)\textsuperscript{43}, stated that a person can withdraw monthly 5 times from the banks. If he withdraws more than 5 withdrawals means, for each withdrawal the customer has to pay Rs. 20/- as service charge. The Central Ministry gave its suggestions to remove service charges which Reserve Bank of India (RBI) refused to accept it. Reserve Bank of India should accept the removal of service charges for more than five withdrawals of other banks so that the public can utilize all the banks for more number of withdrawals.

Gurjeet Kaur Dahi and Sangeeta Gupta (2013)\textsuperscript{44}, stated that apart from the use of ATMs, not having the direct contact with bank staff has increased customers’ apprehensions about the perceived risk. In order to reduce the perceived risk of security and privacy of the customers, the bank should make some improvement in the quality of proper contact with the bank staff and the customers. Doubts and queries about the ATM services should be cleared in developing countries like India.

Nicola Davinson and Elizabeth Silience (2014)\textsuperscript{45}, study revealed the role of the ATM user, especially getting information about their perceptions and behaviour while using new and advanced technology for carrying out the banking transactions. ATM users feel safe and secure while carrying the banking transactions in online and at the ATMs. Moreover, ATM users were aware of the fraudulent activities and they were less sure about behaviour designed to counteract fraud and their potential efficacy. Security among ATM users was not as high as firms among
internet users with internet concerns. Health Belief Model suggested some focused ways for encouraging secure behaviour.

Halil Tunali and Ferda Yerdelen Tatoglu (2010)\textsuperscript{46}, revealed in their study that ATM cards have become an important aspect for both consumers and sellers for the past 20 years. They have examined the factors that are often affecting the ATM card users of Turkey and concluded that ATM card users of households are affected by means of social, personal and economic factors.

Evaluating customer perceptions towards ATM services in financial institutions; A case study of Pakistani Banks, Computer & Industrial Engineering, CIE (2009)\textsuperscript{47} has mentioned that usage of ATMs in Pakistan has shown a very good improvement in the past few years. Depending upon the use of ATMs of other countries, the research study was evaluated regarding personality, benefit and behavioral responses of the customers. Quantitative analysis was done based on questionnaire with all the attributes of the customers. It was found that the customers preferred convenience of use of ATMs when the banks started converting the software to their national language and the availability of number of ATMs. Moreover, it also reveals that a large potential market existed for foreign banks to open their branches in limited locations and connect to all other ATM networks so that 160 million people can attain the benefits of their business.

Bussakorn, Jaruwachirathanakul and Dieter Fink (2005)\textsuperscript{48}, identified the factors that encouraged consumers to adopt internet banking services in Thailand. They have found out the developmental strategies of banks should aim at maximizing the rate of adoption. They have also found out the attitudinal factors that have encouraged the adoption of internet banking in Thailand. They have revealed the features of the website and perceived usefulness depending upon the External environment. They have also revealed about the significant factors such as gender, educational qualification, income level and internet banking experience except the age factor. Hence, people of Thailand started adopting internet banking services for most of their activities.

Awad B.EI Haddad and Mohammad A.Almahmeed (1992)\textsuperscript{49}, identified the customers’ awareness, usage patterns, reasons for using ATMs, requirement of
new services as well as problems that are faced by the customers which were associated with ATMs in Kuwait. They have revealed the significant differences in customers' attitude and opinion with regard to the age, nationality, martial status, occupation, income and educational level groups. They have also suggested about the role of technologies for carrying on their banking services in the development of marketing and in the usage of ATMs.

Robert Rugimbana and Philip I versen(1994)\textsuperscript{50}, explored about the usage of ATMs regarding consumers’ demographics and ATM usage patterns on the basis of consumers’ perceptions. The study has determined the association between consumers ATM usage patterns and their perceptions of ATM attributes by identifying the variables which distinguished users and non-users. They surveyed 630 retail banking consumers from a bank and a credit union Australian banking institutions. They have concluded that ATM users from both institutions differ significantly from non-users in their perceptions of three ATM attributes such as convenience, reliability and suitability. Moreover, they have also concluded that most of the users perceived that ATMs are mere cash dispensers. Therefore, marketing strategies should mainly focus on the most important attributes of ATMs as well as different user groups.

Philip Gerrard and J. Barton Cunningham (2003)\textsuperscript{51}, identified the eight characteristics that have influenced the rate of adoption of internet banking. The adopters of Internet banking perceived the service to be more convenient, less complex, more compatible and more suited for personal computer proficient adopters those who have found to be more financially innovative. The perception of the adopters was about social desirability, confidentially, accessibility and economic benefits which were viewed when adopters were compared with non-adopters. People are well aware and feeling free in using internet banking for their day-to-day activities.

2.6 Research gaps

Through a thorough investigation of review of literature, the researcher identifies the uniqueness of the study. Here, the researcher tries to specify the research gap and highlight the way in which the research study is different from other studies and they are narrated below.
There has been a number of valuable research works on ATM surcharges, negative effects of ATMs, ATM networks, adoption of internet banking, usage and awareness level of smart card users, satisfaction level of ATM cardholders, the effect of credit and debit cards on the currency demand, impact of ATMs on the use of cash, communications and strategies, ATM Fees, the effect of surcharges on small banking organizations, the impact of ATM surcharges on large Vs small banks, ATM a new dimension in the bank services of Bangladesh, the Adoption of Automatic Teller Machine in Nigeria, Problems in ATM network market structure and cash usage, the Effects of transaction characteristics on the Use of Payment Instruments, the Effect of Independent Deployers on Welfare, An Empirical Investigation of ATM service, Smart ATM card holders’ Attitude and Usage level, Consumer awareness and use of payment media, Predicting customers’ behavioural intention towards ATM services, Factors affecting credit card users, Valuating customer perception towards ATM services in financial institutions, ATM Banking behaviour in Kuwait and the Diffusion of Internet banking among Singapore consumers.

This study is one of the comprehensive study which deals about Utility Pattern, Salient Service Quality and Usage Pattern faced by the ATM users and Awareness of SBI ATMs in Salem Town. There has been much research work on the general impact of ATMs on the service quality and awareness of the ATMs. As far as the researcher’s knowledge goes, this is one of the studies which aimed at bringing the unique service quality of SBI Automated Teller Machine and finding out the utility and usage pattern of ATMs and awareness of SBI ATMs in the town of Salem.
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