

Service Quality of Automated Teller Machines in India: An Empirical Study

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Abstract

Automated Teller Machine is a self service banking instrument which provide number of banking services to the customers at any time beyond banking hours. The present study analyzes the growth of Automated Teller Machines in India over the last six years and the quality of services provides through the machine from the point of view of customers. The study is descriptive in nature which uses primary and secondary data. The study revealed that the annual growth rate of ATMs has been decreasing over the years and the overall quality of services delivered through Automated Teller Machines is satisfactory. However, the study pointed out the weak areas of ATM where the service quality is to be improved further.

Key words: Automated Teller Machine, Self service banking; Service quality.

1. Introduction

Automated Teller Machine is a self service banking kiosk that enables the customers to access their bank accounts through a card and to avail a number of banking transactions. Any bank customer can operate automated teller machine with the help of a debit card and the unique Personal Identification Number (PIN) generated and authorised by the bank. In addition to the basic services of cash withdrawals and balance enquiry, present ATMs are smart machines delivering number of other services such as mini statements, fund transfer, money deposit, mobile recharge, cheque deposit, credit card payments, bill payments, service requests, online payments etc. Customers can avail the services of Automated Teller Machine located at convenient places at any time beyond banking hours.

2. Significance of the Study

ATMs in India are in a maturity and saturation period in its life cycle. After reporting a positive annual growth in number of ATMs up to the end of 2016, the outstanding number of ATMs had decreased in the last year. As per the report of the Confederation of ATM Industry (CATMI), the new rules issued by the Government and RBI would hike the cost of running ATMs and the same may leads to the closure of many uneconomical ATMs. In this situation, it will be interesting to analyze the growth of ATMs in India over the last six years and the capabilities of these ATMs to provide quality services to its customers.

3. Review of Literature

From the review of literature on service quality, it can be seen that the work of Parasuraman et al. (1988) established the theoretical background of the SERVQUAL model and the others either adapted the model with or without modifications or developed new models to asses service quality. The majority of the studies in the area of service quality were conducted by using the variables of SERVQUAL model. Since the nature of the industry in which the service quality is assessed is different from others, some researchers adapted SERVQUAL model with modifications. Rod et al. (2009) examine the service quality of internet banking by dropping the 'Assurance' dimension of SERVQUAL because the involvement of the bank staff is negligible in the delivery of electronic services. Since the study properly validated the improved model excluding assurance, the same practice was followed in the present study. Bahia & Nantel (2000) & Al-Hawari et al. (2005) developed new scales to measure service quality and tried to avoid the limitations and critiques of SERVQUAL Model but the models had not gained much acceptance.

4. Statement of the Problem

Automated Teller Machines were introduced to provide customer convenience, quality services, all time banking, anywhere banking, cost effectiveness etc. As a popular and convenient self service banking kiosk, the customers have many expectations about the services rendered through ATMs. The present study analyses the capabilities of the present ATMs to meet these objectives and customer expectations. By conducting this study, it is

expected that new thoughts on self service banking kiosks such as ATM as emanated from the views of its beneficiaries will be helpful for the policy makers in future.

5. Objectives of the Study

The main objective of the study is to assess the quality of services offered through Automated Teller Machines in India. The study is also intended to analyze the growth of Automated Teller Machines in the country.

6. Methodology

This study is designed as a descriptive and analytical one that makes use of both primary and secondary data. The growth of ATMs were analyzed by using secondary data while the quality of ATM services were analyzed by using primary data collected from bank customers in Kerala who are using ATMs. For selecting the beneficiaries of the banking system, Multi-stage sampling procedure was used. 600 customers of four banks (SBI, Canara Bank, Federal Bank & ICICI Bank) from three districts of Kerala (200 each from three districts) were selected to collect the data. Provision for selecting the rural and urban customers, different social and economical classes of people etc., were also made.

In order to analyze the quality of service, five variables in SERVQUAL, a multi-dimensional research instrument developed by a group of American authors, Parasuraman, A., Valarie, A. Zeithaml and Len Berry is used. SERVQUAL is a model of service quality in which the gap score is calculated to assess the difference between customer expectation and perception. The five variables taken for the analysis are Reliability, Tangibles, Empathy, Responsiveness and Security. The interpretations are made on the basis of gap score and median score of customer perception.

7. Growth of Automated Teller Machines in India

By analyzing the number of outstanding ATMs over the last 5 years, it can be seen that growth rate has been decreasing year by year. The annual growth rate of ATMs in terms of quantity is summarized in table 1.

Table.1: Annual Growth Rate of Automated Teller Machines

Year	Number of ATM	Annual Growth (% increase/Decrease)
March 2012	95,686	-----
March 2013	1,14,014	19.15%
March 2014	1,60,055	40.38%
March 2015	1,81,398	13.33%
March 2016	1,99,099	09.76%
March 2017	2,08,354	04.65%
March 2018	2,07,052	-0.62%
March 2019	2,02,196	-02.35%

Source: <https://.rbi.org.in>

From the data given in table 1, it can be inferred that the annual growth rate of ATMs in India has been decreasing since 2013 and the annual growth rate of the last two years are negative.

8. Service Quality of ATM

Service quality is an assessment of how well a delivered service meets the expectation of the customer. Customers may have certain performance expectations while requesting a product or service from the service provider. These expectations are created by the influence of advertising, previous experiences, peer team, sales persons etc. The difference between customer expectation and customer perception constitute the level of quality. The quality of service is the factor which determines the level of customer satisfaction and loyalty. If the customer perception matches with expectation, the customer is said to be satisfied. This is why quality improvement is a vital concern for all service organizations.

8.1. Reliability of ATM

Reliability is the ability to perform the promised service dependably and accurately. This section is an attempt to measure the reliability of Automated Teller Machines and the same is summarized in table 3.

Table 3

Reliability of Automated Teller Machine

Statement No	Service Element	Perception (CP)	Expectation (CE)	Gap Score (CP-CE)
1	All time functionality	3	5	-2
2	All time money	3	5	-2
3	Accurate dispense of money	5	5	0
4	Quality of currency	5	5	0
5	Time taken for transactions	5	5	0
6	Satisfactory Waiting line	4	5	-1
Average Score (Median)		4.5	5	-0.5

Source: Primary data

From table 3, it can be observed that the Gap is score is zero for three statements and it is negative for the remaining elements. Among the statements in which the Gap score is negative, the perception score of statement one and two are not satisfactory. The average perception score for reliability is 4.5 and the average Gap score is -0.5 which indicates the satisfactory quality of service in reliability dimension.

From the analysis, it can be inferred that the overall reliability of Automated Teller Machines is not high but satisfactory. However, the banks are not able to ensure the all time functionality of all ATMs and the all time availability of money. Since the CP value is -1, it can understood that the customer perception towards the waiting time in ATM is also not highly satisfactory.

8.2. Tangibles of ATM

Tangibles is the appearance and efficiency of the physical facilities, equipments and communication facilities. The physical and tangible elements of Automated Teller machine are analyzed table 4.

Table 4

Tangibles of Automated Teller Machine

Statement No.	Service Element	Perception (CP)	Expectation (CE)	Gap Score (CP-CE)
1	Neatness	3	5	-2
2	Inside environment	3	5	-2
3	Appearance of machine	5	5	0
4	Number of ATMs	4	5	-1
5	Location of ATM	5	5	0
6	Availability of Printed statement	4	5	-1
Average Score (Median)		4	5	-1

Source: Primary data

The Gap score is zero for two elements of Tangibles and all other elements have a negative gap score. Since the average perception score and Gap score are 4 and -1 respectively, the service quality of Tangibles dimension is said to be satisfactory. A -2 gap score for the statement one and two is an indication of unsatisfactory service quality.

From the result of the analysis, it can be interpreted that the service quality of the physical elements of ATM is not high but satisfactory. The quality and appearance of the Machine and the location of ATMs are highly satisfactory to the customers. However, the customer perception towards the neatness of ATM counters and inside environment is low.

8.3. Empathy of ATM

Empathy is the care, convenience and the individualized attention to the customer needs. Empathy elements of Automated Teller Machines are given table 5.

Table 5

Empathy in ATM Services

Statement No.	Service Element	Perception (CP)	Expectation (CE)	Gap Score (CP-CE)
1	Easy usage	5	5	0
2	Display of guidelines inside counter	4	5	-1
3	Display of damage or failure	4	5	-1
4	Display of non-availability of money	1	5	-4
5	Sufficient free withdrawal	3	5	-2
6	Satisfactory ATM charges	2	5	-3
Average Score		3.5	5	-1.5

Source: Primary data

From table 5, it is clear that Gap score is zero and the service quality is high for the first statement only. While analyzing the Gap score of other statements, it can be found that satisfactory level of service quality is present in the two aspects of empathy (statement 2 and 3) and it is low for the remaining two (Statement 4 and 5) elements. The average Gap score obtained for the empathy elements of ATM is not satisfactory.

From the results of the analysis, it can be inferred that service quality of ATM for the empathy dimension is not satisfactory. One of the most important element of dissatisfaction in ATM (Gap score of -4) is the lack of indication in the machine when money is not available. The non-availability of money is displayed at the end of the transaction only. Another area of disappointment is high ATM charges and a limited number of free withdrawals. Majority of the customers disagree with the statement that the ATM charges are minimum and satisfactory.

8.4. Responsiveness of ATM

Responsiveness is the willingness or capacity to help the customer and to provide prompt service. The data relating to the responsiveness of Automated Teller Machines is summarized in table 6.

Table 6

Responsiveness of Automated Teller Machine

Statement No.	Service Element	Perception (CP)	Expectation (CE)	Gap Score (CP-CE)
1	Fast recognition of cards	4	5	-1
2	Fast response and processing	5	5	0
3	Communication of transaction SMS	4	5	-1
4	Immediate replenishment	3.5	5	-1.5
5	Settlement of customer grievances	5	5	0
Average Score		4	5	-1

Source: Primary data

Table 6 shows that the quality of responsiveness is satisfactory for all the elements except statement four. The gap score of two statements (Statement 2 and 5) is zero which indicates high service quality and the remaining lies on a satisfactory level.

From the analysis, it can be inferred that the fast response and the immediate settlement grievances are the high-quality elements of ATM. Majority of the customers strongly agree that the ATMs are responding fast while processing and the customer grievances are settled immediately when reported. However, the customers are disappointed with the lack of mechanism to repair the machine when damaged and to fill the cash when empty.

8.5. Security in ATM transactions

Security is the one of the major element of customer concern for every technology-based service. Security is the confidentiality, safety and feeling of free from danger and risks. The empirical analysis of the security elements of ATM is summarized in table 7.

Table 7

Security of ATM transactions

Statement No.	Service Element	Perception (CP)	Expectation (CE)	Gap Score (CP-CE)
1	Physical security of ATM	4	5	-1
2	Security person in front of ATM	2	5	-3
3	Loss or theft of money	5	5	0
4	Privacy in ATM transactions	5	5	0
5	Security of counters with two ATM	3	5	-2
Average Score		4	5	-0.1

Source: Primary data

From Table no.7, it can be seen that perception score is below the rule of thumb in the case of statement 2 and 6 and it is satisfactory for the remaining elements. High level of service quality is measured in statement three and four. However, the overall perception value of security is satisfactory.

From the analysis, it can be inferred that the customers are not highly satisfied with the physical security of ATM. Majority of the ATM counters are operated without security person. The customers do not agree with the security of ATM counters which have more than one machine.

9. Conclusion

The study established that the overall quality of services delivered by commercial banks through Automated Teller Machines is satisfactory. However, the analysis of the various dimensions of service quality identified some areas where the quality of services is less. All time functionality, all time availability of money, failure notification, privacy in multiple ATM counters etc., are the major aspects of Automated Teller Machines to be improved by the service providers.

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