

RESEARCH ARTICLE

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Antecedents of Satisfaction with ATM: An Empirical Study on Public Sector Banks in Odisha

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ABSTRACT

Technology is rapidly changing the way personal financial services are designed and delivered to the customer. Hence, banks found themselves at the forefront of technology adoption for the past few decades. As a result of this technical revolution, ATM (Automated Teller Machine) is the first well known machines to provide electronic access to customers. Although the appearance of ATM provides us with the easy access to banking services, they have introduced new business challenges. In light of this, the present study is focused on the perception and satisfaction of customers regarding the utility of ATM services. A structured questionnaire was administered to 145 customers at ATM branches of different banks in Balasore and Bhadrak. In this study Factor analysis is used to explore underlying factors associated with customer satisfaction with ATM services in Odisha. This study will provide an insight to the factors those have the most effect on customer satisfaction level and will become much useful to bankers in framing their future policies in the state.

Key words: Technology, ATM, Banking services, Customer Satisfaction

Introduction

The explosion in the use of technology by the banking sector has been tremendous since its inception. The emergence of electronic transactions over the past three decades has radically changed the banking landscape and offers remarkable opportunities for growth and development via improved business efficiency. But with advent of technology a customer has one-to-one interaction with the bankers via a mechanistic medium, and in such a situation it is essential on the part of bank to provide high quality services over the automated system of operation. So, in contrast to traditional banking, modern banking involves non-human interactions between customers and online bank information system. Customer satisfaction and customer retention are the key requirements in this situation.

ATM was the first well known machines to provide electronic access to customers. ATM is the abbreviation of automated teller machine which acts as a teller in a bank who takes and gives money over the counter. With the appearance of automated teller machine, banks are able to serve customers outside the banking hall because ATMs are placed inside or near the banks and also outside the banks such as shopping malls, restaurant, airports or any places that people may gather. ATM is designed to manage the most important function of bank. ATM services includes some function such as cash withdrawal, balance enquiry, bill payment, cash and cheque deposit, saving and credit account. With appearance of ATMs, some limitation of time and geographic location has been resolved. In India, HSBC set the trend and set up the first ATM machine here in 1987. Since then, they have become a common sight in many of our metros.

Automated Teller Machines (ATMs) have gained prominence as a delivery channel for banking transactions in India. Banks have been deploying ATMs to increase their reach. While ATMs facilitate a variety of banking transactions for customers, their main utility has been for cash withdrawal and balance enquiry. ATMs undoubtedly are one of the most popular delivery ways for banking services. Banks with lower market share also perceive this technology as a means to increase the market share by attracting more and more customers through this new channel of delivery. However, the service quality in this new channel of delivery needs thorough analysis to find out the determinants for its success and growth useful guidelines for bankers can be extracted. Service quality has found as one of the significant factors in distinguishing services and products. Service quality is an important tool to measure customer satisfaction. There is a close relationship between service quality and customer satisfaction. Customer satisfaction can be protected by providing products or services with high quality.

To this end, this study aims at determining the service quality of banks operative in Odisha with regards to ATM services and identifying the important parameters crucial for service quality from customer's perspective.

Objective of the study:

The study is designed with the following objectives:

1. To find the strength and weakness dimensions ATM services in Odisha.
2. To examine the factors affecting the choice of ATM.

- To study the most important dimensions of quality services offered by ATMs that affects the satisfaction level of customers in Odisha.

Methodology:

One of the primary concerns of this paper is to identify the important parameters affecting the service quality of ATMs. To determine the dimensions of ATM services and their relationships with the overall service quality, a questionnaire survey was conducted over 145 customers at various ATM counters in Balasore and Bhadrak using simple random sampling method. A five point Likert scale is used to elicit responses to the questionnaire. The questionnaire is pretested and revised through back translation process for minor change in wordings. The data collected for the study has been processed and analyzed through computer software - Statistical Package for Social Sciences (SPSS)20 version. Suitable mathematical and statistical tools like averages, percentages and factor analysis are used to analyze and interpret the data.

Analysis and Findings:

In the present study, the factor analysis is used to remove the redundant (highly correlated) variables from the survey data and to reduce the number of variables into definite number of dimensions/ factors associated with customer satisfaction at ATM. The factor analysis is performed using the principal component extraction method with varimax rotation. In order to establish strength of the factor analysis solution, the Kaiser-Mayer-Olkin (KMO) and Barlett's test was first computed and given in table-1.

Table-1 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.646
Bartlett's Test of Sphericity	Approx. Chi-Square	582.829
	Df	91
	Sig.	.000

From the above table, it is found that the value of KMO statistics is greater than 0.5, indicating that factor analysis can be employed for the given set of data.

For the study, five factors having eigen-values greater than one were extracted. The eigen-value of the five factors along with the cumulative percentage of the variance is shown in Table -2.

Table-2: Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.202	22.871	22.871
2	2.144	15.317	38.188
3	1.519	10.853	49.041
4	1.282	9.160	58.201
5	1.025	7.322	65.524

Extraction Method: Principal Component Analysis.

The percentage of the total variance which is used as an index to determine how well the factor solution accounts for what the variables together represent was found to be 65.524%.

Table -3 gives the factor loading of the variables under each of the five extracted factors. In order to interpret the result of Table-3, a cut-off point of 0.5 is decided for each variables to group them into factors.

**Table-3
Rotated Component Matrix^a**

	Component				
	1	2	3	4	5
ATMs are equipped with user friendly technology	-.281	.195	.764	-.037	.101
ATM counters has an attractive decorations	.808	-.008	-.057	-.146	.186
ATM transactions ensure proper safety and security	.286	-.236	.510	.223	-.227
ATMs dispense proper denominator of currency	.761	.078	-.027	-.083	-.013
Money dispensed at ATM is of good quality	.060	-.298	.759	.010	.099
ATMs are located in a suitable location	.808	.212	.070	.221	.097
Distribution network of the ATMs are satisfactory	.721	.007	.025	.155	-.270
ATMs extend Continuous service to the customers	.402	-.037	-.045	.568	.203
ATMs extend wide Variety of transactions to the customers	-.110	-.054	-.408	.536	.089
Withdrawal limit of your ATM is satisfactory	-.244	.778	.298	-.272	-.026
your ATM adopts innovative service delivery system	.168	.761	-.232	.260	.156
ATMs perform accurate and error free record keeping	.038	.027	.058	.102	.925
When there is a problem, banks shows sincere interest in solving it	.069	-.199	-.134	-.734	.648
doing transaction with your ATM is fast and time saving	-.065	.713	.239	-.237	-.103

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

The first factor F₁ can be named as customers' *Convenience* as it includes, 'attractive decorum', 'distribution of proper denomination of currency', 'appropriate location' and 'distribution network of ATMs'. This is the most important factor which explains 22.871% of variance before rotation.

The second factor F₂ can be named as *Reliability* as it includes, 'withdrawal limit,' innovative service delivery' and 'time saving operation'. It is the second major factor which explains about 15.317% of the variance of the variables.

The third factor F_3 stands for *Safety* as it includes 'safety and security in transaction', 'proper quality of the money dispensed' and 'user friendly technology'. This factor explains about 10.853% of the variation.

The fourth factor F_4 stands for efficiency as it includes 'continuous' as well as 'wide variety' of service to the customers. This factor explains about 9.160% of the variation.

The fifth factor can be named as Accuracy as it includes 'accurate record keeping' and 'prompt problem solving'. This factor explains about 7.332% of the variations.

CONCLUSION:

From the above empirical analysis it is revealed that in the global competition world, to promote ATM services it is of paramount importance that the banks must ensure quality in customer service. In this sense quality in operation and satisfaction of the customer are the two key words which must be given sternest attention to promote ATM related services.

Further, the empirical analysis revealed that in the global competition world, to promote ATM related services it is of paramount importance that the banks must ensure quality and security in customer service. Again while using ATM services the customers faced problems such as technical hurdle, more formalities and insufficient number of ATM centers. Further to enhance the customer satisfaction with ATM related services it is felt that more awareness program must be conducted for bank customers through demo fairs.

LIMITATIONS OF THE STUDY:

There are certain limitations of this study:

- Sample size is small so there may be possible that the desired level of accuracy not exist.
- This study is conducted only in small area so there may be chance of Inaccuracy of the result.
- This study is applicable in Odisha only not in whole India.

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