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Research Papers

SERVICE QUALITY OF BANKING SECTORS DUE TO IT ADOPTION

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Abstract

The purpose of this research paper is to measure service quality due to the adoption of high end information technology(IT) in the banking sectors of Bhubaneswar, odisha, India .The research was done among the customers who deal with e-banking services. The sample of study mainly constituted of customers of banks within Bhubaneswar. The respondents of the study were customers of banks using e-banking services (ATM, internet banking, mobile banking).The sample in this study consisted of 128 respondents who are users of the e-banking services. The data collected was analyzed by use of means, percentages, frequency and correlation analysis. From the analysis it is suggested that, secure services as the most important dimension, followed by convenient location of ATM, efficiency, ability to open accounts so that transactions can be effective within no time, auntheticity of records, user friendly, ease of use, complaint satisfaction, accurate transactions and operation in minimal time.

KEY WORDS:
Information Technology, Service Quality , Banking sectors, Bank performance

INTRODUCTION

Information Technology(IT) is fast becoming a dynamic channel that drives the Indian economy. IT is becoming increasingly important for the growth of our economy as a whole. The availability and usage of adequate IT skills are important factors, which influence the competitiveness among commercial banks in this era of e-Economy. There are multiple factors which govern the performance of an organization .Of those, IT has a significant positive impact on the organizational performance[1].Growth and competitiveness of banks are dependent on the successful application of new technologies. Availability of skilled labour is a questionable resource requirement. There is a qualitative and quantitative imbalance in the supply of skilled labour. It depends on the demographic factors ,business cycles and rapid technological advancements taking place around us. Due to the vast development in the area of e-Banking it is essential that the policy makers should focus on the growing demand in IT skills and corrective steps to prepare the required numbers and quality beforehand. e-Banking enables to conduct banking business electronically over the internet where the costs are minimal and it is no longer bound by time or geographically boundary. How can the Indian banks keep abreast of these changes? How can the banks stay ahead and introduce next generation of banking products? The answers to these questions would be to have employees fluent in digital language and people who are innovative & creative. They should be capable in introducing new banking pproducts and understanding the future banking needs of our society. This research provides information to the stakeholders of commercial banks to allocate required funds for the much needed IT training on employees. Further, IT literacy level of the decision makers has a huge impact on the total customer

satisfaction and thereby achieving growth in performance. There were many constraints and hardships experienced by bank branches in the era of pre –IT use. The total number of accounts handled manually by branches with the allocated staff members was limited. Hence the opening of new accounts was restricted in most of the high level branches. Today there is no restriction as such and systems allow the opening of any number of accounts. Before the implementation of automatic teller machine(ATM), customers had to visit their own branch to withdraw cash. Anytime banking was not available. Unavailability of any where banking futures was due to the unavailability of ATM banking. Internet banking, SMS and phone banking. Branches were opened only during the specified time durations. Banking hours were restricted. Branch staff could not leave the branch until they balance their day's accounting. In some instances, balancing was extended to late nights. Daily balancing, month end balancing and year end balancing were tedious tasks to operational staff of the branch. Branches had to offer more restricted banking hours during such periods.

If a customer wanted to withdraw money from his savings account, he had to fill a savings debit form, present it to the cashier, obtain a token and wait till the number is called. When the token number is called, he had to place the signature again on the same debit voucher confirming cash receipt from the cashier. Accordingly he had to visit the cashier at least twice to receive his own money. There were no single point transactions.Branch staff had to check signatures, mandates and ledger sheets and they need to make necessary entries manually before disbursing or after accepting cash from customers. There were long waiting queues at branches on special days when the branch staff could not handle the workload. Fund transfer between two accounts belonging to separate branches or banks was a complicated task and it took several days to effect the transaction. Reconciliation of main accounts took many days and they were usually two to three days behind. Extraction of past records was a task of searching through huge paper files and documents. But today, a customer can receive cash from the branch teller at the first appearance. Tellers are given authority to pay up to a higher level without seeking approval. Tellers can review the information on line using the teller terminals before taking decisions. Debit voucher forms are validated on teller printers.

Customer advices and statements were type written. Even the balance inquiry was a complex task .Job expertise was a mandatory requirement to work at the branch. Customers were given lengthy account numbers as the branch codes and ledger numbers were incorporated in account numbers for easy identification. There was no easy way to extract instant ad-hoc MIS reports for decision. There were no cashless shopping ,marketing or holidaying. People had to carry cash with them. Credit cards & debit cards were not available. Banks are spending huge sums of money in acquiring IT competence. They need to invest huge amounts in foreign currency for hardware, software and soft skills. Also they invest money to train bank staff and maintain and retain the group of knowledge workers .

2. LITERATURE REVIEW

The literature provides an extensive account of the relationships between service quality, customer satisfaction and financial performance where face-to-face interaction between customer and employee is the only focus. Recently, however, technology has had a remarkable influence on the growth of service delivery options (Dabholkar and Bagozzi,2002)[4].

Now a days, IT is one of leading dynamic force in different business(Tavares,2000).It is therefore important to research the investments in technology and their impact in the bank business(Saunders and Walter,1994;Sethi and King,1994 [2],[3].It is particularly important to assess how technology is reducing labour intensive activities, reducing service and processing cost, increasing service levels and improving the productivity and competitiveness of the Indian financial sector.

Service quality can be seen as the extent to which a service meets customer's needs and expectations (Lewis and Mitchell,1990) [8].Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence perceived quality is less than satisfactory and customer dissatisfaction occurs (Parasuraman et al.), 1985[9].

Dabholkar(1994) [5] claims that when the customer is in direct contact with technology there is greater control such as with internet banking. However, if there is an absence of direct contact ,such as with telephone banking, it is assumed that there is less control perceived by the customer during this transaction. Bateson(1984) [6] has conducted a number of studies on the need for consumers to have

control during service encounters. When a consumer freely chooses to use technology as a form of service delivery, the impact is high in terms of quality attributes. Some of the quality factors that are highly attributes .some of the quality factors that are highly important to customers are efficiency and speed(Betson,2000) [7].

Service quality has been recognized as having the potential to deliver strategic benefits, such as improved customer retention rates, whilst also enhancing operational efficiency and profitability (Cronin,2003;[10], Rust et al., 2001;Zeithmal [14], 2000) [11]. Oliveria et al.(2002) suggest that e-service quality is amongst a firm's competitive capabilities that lead to business performance ,Roth and Menor (2003) [13] see issues in implementing service technology and e-services as in service operations, and Al-Hawari and Ward(2006)[12] demonstrates that service quality impacts on customer satisfaction which in turn affects the financial performance of banks.

The financial reform process initiated in 1991,poses lot of challenges before the banking sector in India as never before .After nationalization of commercial banks in India in 1969 and 1980,the ownership of major commercial banks was taken over by the Government. Then, the Government decided the agenda for action, directing the flow of credit and even determining the pattern of credit flows to specific sector(Joshi &Joshi 1998).After nationalization, competition was restricted and the banking sector was insulated from world financial markets. Over a period of time, the prevailing environment created a mindset, where one began to look for guidance for every thing. There was a comfort among the bankers when approval, guidance or confirmation of actions taken was received from the higher authority .The banking personnel have completely lost their vigour and stopped thinking and operating like business organization.

The last decade has seen many positive developments in the banking sector. The policy makers, which comprise the Reserve Bank of India(RBI), Ministry of finance and related government and financial sector regulatory entities, have made several notable efforts to improve regulation in the sector. Banking in India was defined under section 5(A) as " any company which transacts banking, business" and the purpose of banking business defined under section 5(B),"accepting deposits of money from public for the purpose of lending or investing, repayable on demand through cheque/draft or otherwise". In the year 1955,after independence, Imperial Bank of India was nationalized and renamed as State Bank of India(SBI) with a primary mandate to go to rural areas by opening at least 400 branches immediately. In the year 1957, the seven banks that were earlier catering to the rulers of different areas or states viz.,Patiala,Bikaner,Jaipur,Indore,Saurashtra,Hyderabad,Mysore,Travancore became subsidiaries of SBI. In 1969 and 1980, Government of India nationalized 14 and 6 major banks respectively .After the merger of New Bank of India with Punjab National Bank during the era of financial sector reforms, the number of PSBs became 27, which are under present study.

Public sector banks are the ones in which the government has a major holding .They are divided into two groups i.e. Nationalised banks and State bank of India and its associates. Among them ,there are 19 nationalized banks and 8 State bank of India associates. Public sector Banks dominate 75% of deposits and 71% of advances in the banking industry. Public Sector Banks dominate commercial banking in India. These can be further classified into:

(1)State Bank of India (2)Nationalized banks (3)Regional Rural Banks

In July 1969, 14 banks with a deposit base of Rs. 50 crores or more were nationalized. Again in 1980, six more private banks were nationalized, bringing up the number to twenty .These banks were: (1)Bank of Baroda (2)Punjab National Bank (3)Bank of India (4)Canara Bank (5)Central Bank of India (6)Indian Bank (7)Indian Overseas Bank (8) Syndicate Bank (9)UCO bank (10)Allahabad Bank (11)United BANK of India (12)Oriental bank of commerce (13)Corporation bank (14) Vijaya bank (15)Dena bank (16)Bank of Maharastra (17)Andhra bank (18)Punjab & Sind bank (19)New Bank of India (20)Corporation bank.

3. RESEARCH METHODOLOGY:

The research was carried through across-sectional survey design which asked respondents on e-banking services. The design of the questionnaire was based on a multiple-item measurement scale(e-banking services).It looked into the relationship between technology and service quality in the Indian

banking sectors. This study is suitable when dealing with many members in a population where it is not possible to study all of them and hence calling for sampling in order to come up with a generalizations and inferences about the whole population. Similar studies that have successfully used this research design are;N0rizon(2005),Gakuo(2003) and Mwangi(2002).

The population of study was drawn from banks within the central locations of Bhubaneswar, odisha, India. This mainly constituted of customers of banks using e-banking services(ATM, mobile banking, internet banking. The target locations were headquarters and branches of various banks.

The sample in this study consisted of respondents who were users of the e-banking services(ATM, mobile banking, internet banking).A data for the study came from self-administered questionnaires which were distributed to 128 personal and customers in Bhubaneswar city and therefore comprised of city dwellers because of time resource limitation(Ontunya 2006) [15].Similar approach was adopted by Norizan (2005). The sample constituted of 77% of personal customers while 23% of the customers was derived from corporate customers. This enabled the researcher to get the mixed perceptions of the two groups in the use of various electronic channels.

The study used primary data, which was captured through semi-structured questionnaires. The questionnaire consisted of both closed and open ended questions and had three sections. Section one dealt with general information on the participants. Section two sought information on the relationship between technology and service quality in the banking sector. Section three sought information on the factors that lead to customer preference of different service delivery channels. The questions were presented in the form of statements on a 1-7 likert scale for respondents to score statements that describe the consumer's perceptions of electronic banking performance and the most important attributes of electronic banking service. The researcher captured the customers during peak hours i.e. lunch and evening hours. At this time, more financial transactions took place and therefore, there were high chances of capturing many customers. The researcher mainly used a mall intercept method to capture the respondents (out of every five customers in the queue, one was selected).

To establish the relationship between technology and service quality in the Bhubaneswar banking sector, frequency and percentage proportions of the statement describing relationship were used. From the same scores, means were calculated to determine the perceived relationship i.e. the strength of relationship. Correlation analysis was also used to establish the relationship between the technology and service quality in the banking sector .To determine the factors that lead to customer preference of different service delivery channels, the score of customer preference was cross tabulated to establish the degree of influence. From these scores, means and percentage proportions were used to rank the factors that influence the preference of different service delivery channels. Generally, there is no agreement on which format is most appropriate for measuring service quality. However, for this particular study, using I/P grid more readily provided easy access for practitioners to the findings and suggestions for improvement. The factors to be tested included: reliable and accurate banking services, customer service ,personalized service accurate records.

4. DATA ANALYSIS:

Data was collected from customers who use e-banking at the banks in Bhubaneswar, odisha, India .Consequently, the collected was analyzed and interpreted in line with the aims of the study which include: to establish the relationship between technology and service quality in banking sector and to determine the factors that lead to customer preference of different e-banking channels. Of the 128 questionnires distributed for this research,80 usable questionnaires were returned giving a response at a 62.5 %, which was considered satisfactory for subsequent analysis. This analysis focused on relevant dimensions of service using the items involved. These were then examined in amore detail for purposes of comparison between themselves and across respondents .A model with four factors listed below may be adequate to represent the data for this particular sample of Indian banking customers, reliable and accurate banking services, customer service, personalized service and accurate records.

The respondents were asked the latest electronic banking service they have used. It was revealed that more customers have adopted ATM banking than mobile and internet banking. This implies that the banking customers are more familiar with the ATM technology as connected to both internet and mobile banking. This is shown in the table 1 below.

Table1: Latest e-banking service used by customers

Type of technology used by customer	Response Percentage	
	Yes	No
ATM banking	90.1	9.9
Mobile banking	27.0	73.0
Internet banking	31.0	69.0

The respondents were asked about the performance of e-banking channels with respect to the service quality dimensions. It was shown that most of the service quality dimensions with an exception of including all the banking needs in the option menu, convenience, acknowledgement by name and voice online are positively related with ATMs. However, most of the service quality dimensions are negatively related with both mobile and internet banking. This is shown in table 2 below.

Table2:Correlation matrix

Electronic banking channel Service quality dimension	ATM	Mobile	Internet
Easy use	0.037	0.035	-0.0133
Operates 24 hrs a day	0.036	-0.0153	-0.179
All banking needs in menu option	-0.189	-0.022	-0.015
Process my transactions efficiently	0.168	0.023	-0.062
Performs transactions immediately	0.283	-0.058	-0.032
Performs all transactions accurately	0.123	- 0.105	-0.046
Give you a written guarantee that transactions have taken place	0.048	-0.093	0.009
Provide accurate records	0.126	-0.176	-0.112
Be personalized	0.047	-0.164	-0.207
Have its ATMs conveniently located	-0.154	-0.129	-0.98
Provide secure services	0.061	-0.600	0.40
Special service to disabled	0.111	0.100	0.155
Acknowledge me by name on the screen during the transaction	-0.109	-0.181	- 0.145
Have a user –friendly system in place to make ATM transactions easier	0.098	0.012	0.262
Connect you immediately to the service	0.094	0.113	-0.239
Provide voice/on line directions for new users	-0.037	-0.241	-0.228
Provide a customer friendly environment whilst waiting in the queue to be served such as music	0.128	-0.140	-0.016
Provide a customer friendly environment whilst waiting in the queue to be served such as advertising about other services the bank provides	0.128	-0.127	-0.042

Of the 75% customers interviewed, 77.1% of the respondents' preferred ATM method of cash withdrawl and 22.9% preferred using teller method. Of the 75 customers interviewed,26.4% preferred using ATM method of cash deposit while 73.6% customers preferred using teller approach in depositing their cash.

The respondents were asked to rate and performance of various factors considered in the electronic banking services. The negative scores imply that given the importance of these items, their mean performance scores are problematic .Table 4 below shows that, the respondents are not generally satisfied with their respective banks. This implies that there is an expectation gap i.e. there is a difference between what the customer expects and the actual services being delivered. This has a negative impact particularly on banks that rely on electronic systems to increase their customer base.

It could be argued that the performance of electronic banking services falls within the area considered equivalent to the respondents "Zone of tolerance". This suggests that even though the respondents perceive that e-banking services as not living up to expectation for what constitutes a "quality" service, they are at least not dissatisfied with their bank's performance as long as certain conditions are met. Conversely, expectations may have been low of banking provision generally. Other possible reasons include difficulties in changing service provider and the experience of the customer i.e. the less experienced the customer is, the lower the expectation of the service. The less new e-banking becomes, the more experienced the customer will be.

The customers indicate that they are satisfied in the following areas " operates 24 hours a days", "have all banking needs included", "Be capable of performing all transactions accurately", "being personalized e.g. great me by using my name", "provide secure services", "acknowledged me by name", "Provide services in a number of different languages" and " provide voice online directions for new users".

As indicated in table (3), "be able to satisfy my complaints within 24 hours," "be able to set up accounts so that I can perform transaction immediately", "Process my transactions efficiently", provide a customer friendly environment whilst waiting in the queue to be served such as advertising about other services the bank provides" and "provide customer feedback" are amongst others regarded as important yet the needs are not being met. This implies that customer's satisfaction levels can only be raised if the customer is fully confident that their transactions i.e. going to be dealt with as efficiently, diligently, friendly, provision of feedback and able to satisfy customer's complaints as they would be in a face-to-face service encounter. The lack of physical presence or personnel does not lower banking customer's expectation levels with regards to service quality, in fact it may raise expectation levels of delivery, quality, trust and the need to build, maintain and consistently enhance relationships.

Table 3: Sample response across items

Attribute	Importance rating	Performance rating	Performance-Importance rating
Internet banking: An ideal electronic banking service should:			
Ease use	4.21	4.11	-0.10
Operates 24 hours a day	4.15	4.38	0.23
All your banking needs in the menu options	3.99	4.11	0.12
Process my transactions efficiently (not wait)	4.47	4.08	-0.39
Performs transactions immediately	4.41	3.92	-0.49
Performs all transactions accurately	4.15	4.23	0.08
Give you a written guarantee that transactions have taken place	3.98	3.85	-0.13
Provide accurate records	4.33	4.24	-0.09
Be personalized, e.g. great you by name	3.66	3.96	0.30
Be able to satisfy your complaints	4.25	3.68	-0.57
Provide customer feedback services	4.06	3.81	-0.25
ATM: An ideal electronic banking service should be:			
Have its ATMs conveniently located	4.50	4.09	-0.41
Provide secure services	4.37	4.43	0.06
Acknowledge me by name on the screen during the transaction	3.41	3.27	-0.14
Have a user –friendly system in place to make ATM transactions easier	4.22	4.11	-0.11
Provide services in different languages	3.97	4.02	0.05
Telephone banking: An ideal electronic banking should :			
Connect you immediately to the service	3.97	3.77	-0.20
Provide voice/on line directions for new users	3.55	3.68	0.13
Provide a customer friendly environment whilst waiting in the queue to be served such as music	3.43	3.37	-0.06
Provide a customer friendly environment whilst waiting in the queue to be served such as advertising about other services the bank provides	3.45	3.07	-0.38

The rank ordering of the different service dimensions will ensure clarity of the customer's perception of the respondents. The rank order according to table (4) shows that 66.2% of the respondents indicated that, secure services as the most important dimension followed by convenient location of ATMs ,efficiency, ability to set up accounts so that I can perform transactions immediately ,operation in 24 hours and recognition. This is shown in table 4 below

Table 4: Ranking of service dimensions in terms of their importance

Service dimension	Percentage
1. Secure services	66.2
2. Convenience	63.5
3. Efficiency (time)	61.6
4. Performance of transactions	54.8
5. Accurate records	54.8
6. User-friendly system	51.4
7. Be able to satisfy complaints	47.2
8. Accurate transactions	43.8
9. Efficiency (overall)	41.7
10. Recognition	41.1

5. CONCLUSION:

By the use of correlation analysis, percentage and means, it was established that there is a direct relationship between IT and service quality in the banking sector. Use of IT enhances the service offering to the customer in banking. However, the level of service expectations varies depending on the level of experience with e-banking and level of education of the customer. For instance, expert banking customers tend to have higher expectations than their novice counterparts. This expertise may relate to both financial and technological issues and banks need to be mindful of these customer differences when designing their service offerings.

The importance –performance grid in table (3) shows that convenience, immediate performance of transactions and efficiency lies in the" concentrate" quadrant. The respondents indicated that security and operation of the e-banking lies in the "keep up the good work" quadrant. Be personalized, provision of special services to the disabled, provision of a consumer friendly environment in terms of music advertising while on the process of getting the services and provision of services in a number of different languages lies in the "low priority" quadrant. Having all the banking needs included in the option menu and accurate performance of the transactions lies in the "possible overkill" quadrant.

The key factors for satisfaction/dissatisfaction in the Indian banking industry in relation to information technology(IT) were established. This was made possible through the use of importance/performance grid. The e-banking customers seem to be quite satisfied in the following areas: security, efficiency, accurate records, convenience and accurate transaction.

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