

# Customers' Education towards Technological Innovations in Banking Industry: A Study with Special Reference to Banks in Assam

Monjita Bordoloi

M.Phil Research Scholar, Discipline of commerce, Krishna Kanta Handiqui State Open University, Assam, India  
Email: monjitabordoloi@gmail.com

---

**Abstract**— The growth and advancement in technology has led to a paradigm shift in the banking operations. With the evolution of information and communication technology, banking institutions are providing products and services that are different from the conventional one. In recent years, banking industry has invested heavily in bringing modern technology to banking operations in order to gain improved business relationship with their customers. Further, the development in ICT enabled banking created a radical change in fulfilling customers' variety of needs. However customers are still in the process of acquiring required knowledge and skills to avail the various innovative banking services. There is an urgent need for technological education management system to make the customers familiar with new and innovative banking services. This study aims to investigate the customer perception related to management techniques used by the banks to provide technical education and assistance to fulfill customers' needs and expectations and to maintain better relationship with them.

**Keywords**— Information Technology, Innovative Banking, Perception, Technical Education

---

## I. INTRODUCTION

Emerging digital technologies enable a new degree of freedom to new entrants to the banking ecosystem. New-age fintech challengers are chipping at "traditional banks" from all sides and slowly dismantling the protective walls built up by the incumbents over the past century. The banking and wider finance industry is facing these upstart digital banking innovation challenges across the spectrum of payments, cash, lending, money transfer, investment management, and lending, among other areas. But for a particular bank to succeed and grow, it has to make all its resources revolve around its customer. Now the time has come for the banks to focus on the needs of their customers and devise better means of fulfilling them. They will have to formulate marketing strategies in a way to not only acquire new customers but also retain them for the lifetime. The growth and advancement in technology has led to a paradigm shift in the banking operations. With the evolution of information and communication technology, banking institutions are providing products and services that are different from the conventional one. The expansion of services offered and geographies served meant that large banks became "universal banks", with many merging in order to accelerate the process. Some of these developments were primarily governed by established banks having a captive base of consumers and simply leveraging their scale to increase

absolute profitability. Yet, as information technology took hold in the latter half of the 20th century, most implementations of technology by banks were more evolution than revolution. The development in information and communication technology created a path of absolute change in the way of proving customer service. Along with other industry banking industry also heavily involved them in bringing modern technology in their operation in order to attain competitive advantage and achieve the target of acquiring and retaining most profitable customers. Banking automation provided customers with end number of innovative facilities like ATM, mobile banking, internet banking, sales and web portal sales and many more. But in order to implement the modern technology in banking, there is a significant need for education towards the same. To manage the advanced banking service users through digital mode banks are adapting to various tools techniques like computer networking, information through website, EDI, e-mailing, e-messages, online chats and toll free numbers in the website to provide adequate knowledge and assistance to the customer. As customers are still in the process of adapting to modern technology in availing their banking services, providing proper education and assistance them regarding modern technology uses are of utmost to make an effective implementation of modern and innovative technology in banking.

## II. LITERATURE REVIEW

A brief review of the existing research in this field has been presented. The findings of the researches are as follows: Tamarasi and Praveen (2019) have analyzed service quality customer experience and satisfaction with the help of various socio-economic and others variables. Researchers conclude the study stating that there is continuous need for product innovation to meet customers' changing needs. Bugaje (2015) highlighted the challenges and maintenance of e-CRM in the organizations through their study. It is found that the major challenges managing e-CRM are security, consistency, managing channels, huge database etc. Umar, et.al (2011) reveals that the major issues in the internet banking services are security and the lack of trust especially on ATM machines. In order to create and rebuild the trust of customer, bank should take further strong security measures from every aspect in internet banking services. Oppong, Adjei and Poku (2014) revealed through their study that there are challenges to adoption of information technology because of security concerns, low level of economic development, perceived customer readiness, poor connectivity, increasing cost of IT infrastructure, etc. In spite of the challenges customers are loyal to the electronic services of the bank. Pandey and Singh (2012) investigated the relationship between CRM dimension and customer retention. study show that both types of CRM dimensions are playing crucial role in customer retention in Indian banking. Organization culture and information sharing is very important CRM dimension for retaining customers. The findings of the study reveals that public sector banks are providing quality services to remain competitive against private and foreign sector banks. Data analysis of the study indicates that empathy as a service quality parameter where private banks are doing well, rest of the other parameter like reliability, responsiveness, assurance and tangibility are those areas where both the banks are equally good. Jadhav (2018) revealed that the selected service sectors have taken rapid strides in applying and adopting of technology which is capable to organizations in the developed countries. Mang'unyi, Khabala and Govender (2017) made a quantitative approach through a cross sectional survey design to establish relationship between the variables. For the purpose of the study, data have been collected from the customers of the standard chartered bank residing in capital city of Kenya through a self-administered questionnaire. The results of the study put emphasis on the generalization that pre-service, during service and post transactional e-CRM features have positive relationship with bank customer loyalty. Murgan and Senthikumar (2011) made an empirical

study to understand the technological changes that the commercial banks witnessed and its benefits to build better customer relationship management services of public sector bank in comparison to private sector banks. The study suggests that public sector bank should consider service quality more seriously to retain their customer.

## III. RESEARCH PROBLEM

In service sector like banks, fulfilling customers' need in the right way and right time and by using the proper channel is most important of all. With the advent of advance technology the whole system of service providence took a new path aiming towards modernization. A major part of the customers are still new to the process of upgradation and it becomes challenging for them to get adapted with the banking system. It is through proper technical education, guidance and relationship management; the bank can reduce the knowledge gap and maintain long lasting relationship with the customers. Therefore, an attempt has been made by the researcher to analyze consumer perception related to management techniques used by the banks to provide technical education and assistance for the purpose of fulfilling customers' needs and expectations and maintain better relationship with them in Assam.

## IV. RESEARCH OBJECTIVES

- i. To analyze the customer education practices performed by banks towards technological innovation.
- ii. To observe the technical awareness strategy used by banks to maintain better relationship with customers.

## V. METHODOLOGY

The study is both descriptive and analytical in nature. It takes into consideration both primary and secondary data. The study has been confined to bank customers of Assam. The area of the study is confined to commercial banks of Assam.

**Sample size and sampling technique:** For this study, commercial banks of Assam have been selected randomly, a total of 170 questionnaires have been distributed among the random bank customers in the districts of Assam. Total 160 complete questionnaires from bank customers been received and later used for the purpose of the study. The required primary data has been collected from the bank customers of Assam by using random sampling method. Respondents were approached to collect responses regarding their experience and awareness towards technical education and relationship management of banks providing technology advanced services. For this study the researcher has

classified the respondents according to age, income, location and literacy. Primary data has been collected with a predesigned structured questionnaire including general and specific questions for the purpose of the study.

This study is based on both primary and secondary data. Primary data has been collected from the sample customers through a structured questionnaire designed in five point likert scale. Secondary data has been collected from standard text books, published research papers, newspapers, bank websites and internet.

**Analysis and Interpretation:** The data for the purpose of the study is analyzed by using weighted frequency score, weighted mean and simple percentage technique.

### VI. RESEARCH QUESTIONS

- i. Does customer technical education has an effect on successful implementation of modern technology in banking?
- ii. Does customers' technical awareness practices have an impact on customers' technology adoption in banking?

### VII. ANALYSIS AND INTERPRETATION

#### i. Customer education practices towards technological innovation in banks

variables	SA(5)	A(4)	N(3)	DA(2)	SD(1)	W.F.S	W.M	A.W.M
Dedicated strategy on awareness programme	9(6.9)	25(19.23)	40(30.8)	34(26.2)	22(16.9)	273.1	2.1	2.3
Educational programme in easy to access	15(11.5)	44(33.8)	35(26.9)	27(20.8)	9(6.9)	321.9	2.5	
Available key channels for various information	11(8.5)	34(26.2)	32(24.6)	31(23.8)	22(16.9)	285.6	2.2	
Provide customer friendly educational tools	8(6.15)	38(29.2)	46(35.4)	20(15.4)	18(13.8)	298.35	2.3	

Table i. has shown the customer responses towards technical education practices performed by banks. the table shows the responses in the scale of strongly agree to strongly disagree calculated the data in terms of weighted frequency score, weighted mean and weighted average mean. The calculated data in the table has shown that the

variable, educational programme in easy to access has the highest weighted mean of 2.5 and most of the respondents are agreed with it. The data shows that banks should build dedicated strategies towards awareness programme as it has the lowest weighted mean score of 2.1 given by the customers.

#### ii. Technical awareness strategy used by banks to maintain better relationship with customers

variables	SA(5)	A(4)	N(3)	DA(2)	SD(1)	W.F.S	W.M	A.W.M
Dynamic educational content to deliver message	10(7.7)	31(23.8)	37(28.5)	30(23.1)	22(16.9)	282.3	2.17	2.27
Focus on the message 'what is in it' for them	17(13.1)	43(33.1)	49(37.7)	15(11.5)	6(4.6)	338.6	2.6	
Make customer aware of the technical support	6(4.6)	32(24.6)	54(41.5)	14(10.8)	24(18.5)	286	2.2	
Constantly optimise programme from real feedback	4(3.1)	26(20)	58(44.6)	20(15.4)	22(16.9)	277	2.13	

Table ii. has shown the customer responses towards technical education practices performed by banks. the table shows the responses in the scale of strongly agree to strongly disagree calculated the data in terms of weighted frequency score, weighted mean and weighted average mean. The calculated data in the table has shown that the

variable, Focus on the message 'what is in it' for them has the highest weighted mean of 2.6 and most of the respondents are agreed with it. The data shows that banks

should work on Constantly optimise programme from real feedback as it has the lowest weighted mean score of 2.13 given by the customers.

### VIII. DISCUSSION

Results of the study provide technical education and awareness level banks by considering the perception of customers using modern banking technologies. New technological evolution in the banking sector growing day

by day and the banking industry also becoming a part of automation in operation like other growing industries. From the study, it is clear that a considerable number of people aware of the new banking technology but due to its complexities and operational methods, still a considerable part of the customers are less confident about the technical education and awareness provided by the banks to educated customers. Remarkable number of people using technologically advanced banking services but management should take more effort to make those services customer friendly by providing proper education and awareness so as to retain their loyal customers. In order to maintain healthy business relationship, proper relationship management strategies should be adopted by banks to gain the confidence of customers towards innovative banking technologies.

#### **IX. LIMITATIONS AND SCOPE**

The study was confined to the limited branches and banks of Assam. The findings should not be generalized for all the banks and states. Results may vary according to branches or states. Further the study can be done on a large sample size and also comparison may be done by considering other parameters suitable for the study. Future researches may be done focusing on public and private sector banks relationship maintenance with customers through technical awareness and education.

#### **REFERENCES**

- [1] P. Oppong, H. Adjei, & K. Poku, "The role of information technology in building customer loyalty in banking: (A case study of agricultural development bank ltd. Sunyani)", *British Journal of Marketing Studies*, vol. 2, no. 4, pp. 9-29, August 2014.
- [2] P. Pandey, & H. K. Singh, "The relationship between CRM dimensions and customer retention in Indian banking industry: An empirical study of public and private sector banks", *Journal of Commerce and Accounting Research*, vol. 1, no.4, pp. 51-59, 2012.
- [3] M. Murgan, & S. A. Senthikumar, "Customer relationship management in banking sector (an empirical study with reference to banks in Thiruvannamalai District, Tamil Nadu)", *International Journal of Enterprise and Innovation Management studies*, vol. 1, no. 3, pp. 126-132, January 2011.
- [4] E. E. Mang'anyi, O.T. Khabala & K. K. Govender, "The relationship between e-crm and customer loyalty: A Kenyan commercial bank case study", *Bank and Bank systems*, vol. 12, no. 2, pp. 106-115, May 2017.
- [5] B. I. Bugaje, "Effect of electronic-customer relationship management (e-crm) on business organization", *Abuja journal of Business Management*, vol. 1, no. 1, pp. 73-80, March 2015.
- [6] N. R. Jadhav, "A study of customer relationship management (CRM) practices in the insurance sector in Maharashtra state", *International Journal of Science and Research Methodology*, vol. 8, no. 4, pp.13-21, February 2018.
- [7] N. Tamilarasi, & M. Praveen, "A study on customer relationship management in banking sector (special reference to Coimbatore)", *International Journal of Applied Research*, vol. 5, no. 3, pp. 243-246, June 2019.
- [8] B. A. Omar, et al., "Consumer perception towards online banking service: Empirical evidence from Pakistan", *Journal of Internet Banking and Commerce*, vol. 16, no. 2, pp. 1-24, August 2011.