Customer Convenience: A Cause for Technological Changes in Banking Sector

Prabhavathi K. and Dinesh G. P.
Ballari Institute of Technology and Management
Affiliated to VTU
Bellary, Karnataka, India

Ravi Kanth B. K. and C. S. P. Rao
National Institute of Technology - Andhra Pradesh
India

Abstract

Customer convenience has a large role in a customer's decision to use banking services. The major goal of this research is to illustrate how different components of customer behavior influence technical improvements in the banking business. The findings from 110 bank employees' responses have been collected relevant to mobile banking as a technological change through convenient sampling for primary data collection. Quantitative data analytical tool – MATLAB was used to find the correlation between the attributes of cause for changes in banking services and technological change. The results appeared were not significant which has made us to use the qualitative data analytical tool – NVIVO software which have highlighted convenience is the response of most of the questions comparative to other variables for technological changes in banking sector. Through NVIVO Tree mapping, Word count, Text search have shown same results. The results here have highlighted on important aspect that customer convenience is the cause for technological changes in banking sector. These findings insights to banks about how important is the customer convenience which is leading to technological upgradation and appropriate usage of tools for data analysis depending on qualitative data and quantitative.

Keywords
Banking, Customer Convenience, Technology and Mobile banking.

1. Introduction

The organized retail industry, which has experienced remarkable expansion over the previous two decades, is one of the most significant fields of research today. During the last two decades, Indian retailers have had to cope with more demanding and intelligent consumers, as well as new and often unforeseen conditions, as well as competition from both international and local sources, because of a surge of technology advancements. These changes and advances put constant pressure on retailers to find new and imaginative methods to add value and set themselves apart from their competition (Srivastava 2014).

Banking sector has experienced tremendous changes due to practice of innovations like online banking being at one place several jobs done throughout the world, and India is one among them. Continuous customer demands and high competition have India to identify the key drivers of loyalty and customer satisfaction (Lenka et al. 2009). Return on investment, market share, profitability which are the factor of economic success is realized by loyalty by the customers led by satisfaction (Reichheld 1996). The market now lies on the customers which has changed drastically.

The importance of banking was realized by the end of 17th century which made the changes in government regulations. The new implementations in the banking sector of making payments had highly promoted the industrial growth leading to the convenience in payments (Prabhavathi K. and Dinesh P. 2018).

The rapid development of information technology, the internet, and mobile banking has led to tremendous worldwide expansion (Laukkanen 2016; Shankar et al. 2020). Customers' adoption of technology is impacted substantially by the speed and convenience of use provided by service providers (Duarte et al. 2018). If any bank provides branch banking
services, it needs to open many locations to reach its consumers. Consumers can use a branch to get bank services, but they can use mobile banking platforms to get banking services from anywhere. As a result, banks may expand their reach by providing financial services through mobile banking platforms.

Online banking convenience plays an important role in mobile banking service availed by consumers. The absence of understanding in how internet convenience is making the consumers adoption the technological services like mobile banking has become a problem (Lee 2015).

According to the research (Jiang et al. 2013, Berry et al. 2002, and Duarte et al. 2018), consumer convenience is a multifaceted concept, and marketers must understand which aspects of convenience to focus on to accelerate technology adoption and usage (Reimers and Chao 2014, Berry et al. 2002).

Due to the dual income households and longer time providing banking services (Alreck and Settle 2002), customers do not like to spend more time in walking to branches of bank for using services of the bank (Shankar et al. 2020). Customers are gravitating toward institutions that offer greater service and convenience. To satisfy their clients, marketing strategies must now be centred on differentiating themselves from rivals and providing more convenient and better financial services. Getting a new client is more expensive than keeping an existing one. Customer loyalty is described as a customer suggesting a company to a friend or making a repeat purchase (Heskett et al. 1997), resulting in positive and measurable financial results (Duffy 2003, Kaura 2013). Convenience costs are spent when time, physical and mental energy, and money are expended to overcome distance and temporal frictions and achieve ownership of products and services.

The extremely low-price gap across most merchants offering similar nationally marketed items shows that convenience costs have taken on significant significance in determining seller strategy. It is sensible to think of commodity costs as a narrowing spectrum of competitive advantage. In this study, it is more visible that considerations of convenience play more important role in purchase behavior and sellers' strategy (Charles J Mortimer 1955). The relevance of convenience as a factor of customer acceptance of products and services may be seen in the growing number of convenience features integrated into new goods and in the introduction of new convenience forms into the marketing system. The President of the General Foods Corporation, Charles G. Mortimer, has discovered ten different sorts of convenience that today's American client expects. Form convenience, time convenience, location convenience, quality or unit convenience, packaging convenience, readiness convenience, combination convenience, automatic operations convenience, selection convenience, and credit convenience are all examples of convenience (Charles J Mortimer 1955).

Furthermore, investigating the elements of online convenience that positively affect mobile banking uptake and usage might assist bank managers in overcoming barriers to providing financial services.

1.1 Objectives
The main objectives of this study are to show the important factors causing the technological changes in the banking sector and the importance of customer convenience aspect in the services sector. Also, the choice of a data analytical tool usage plays a key role in the results and interpretation of the data.

2. Literature Review
Copeland (1923) defined convenience as the sum of a customer's time and effort spent getting or purchasing a service or a product. Both time (Berry et al. 2002) and effort saving features of convenience (Kaitcheva and Weitz 2006, Emrich et al. 2015) have been examined in the available research. It was observed that most consumers are loyal or switch due to lack of convenience in service providers (Pan and Zinkhan 2006, Seiders et al. 2007).

Convenience aspect is the precedence of service delivery which cannot be considered as a least. Some studies as a matter of fact have tried to explain that convenience is availed by customers (Farquhar and Rowley 2009). Banks may give consumers with post-possession convenience by allowing them to contact customer service representatives for live complaint status monitoring, as well as rapid and quality replies to any concerns they may have (Seiders et al. 2007).

Along with brick-and-mortar services through channels of offline and internet there is a shift in retail banking with introduction of mobile phone (Shaikh and Karjaluoto 2015). Consumer complaint handling, simplicity in getting
maturity funds, addressing transactional difficulties, and service warranty are all important post-possession actions that may encourage customers for embracing and using mobile banking services (Seiders et al. 2007).

According to research, perceived ease of use, trust, social influence, behavioural control, perceived utility, compatibility, perceived risk, and enabling conditions are the most important elements influencing mobile banking adoption intention (Shaikh and Karjaluoto 2015). Convenience may thus be described in the context of mobile banking as the effort and time spent by a customer to obtain a financial service. Banks, for example, gives importance to the factor of convenience of the customer since they understand how much time and effort consumers value (Shaheed 2004). Online convenience is a multi-dimensional concept is described by other researches (Berry et al. 2002, Jiang et al. 2016), despite the fact that there is no consensus on the aspects of online convenience (Reimers and Chao 2014).

Retailers could make it easier for customers to find what they want by giving greater selection options, whereas online retailers can make it easier for customers to find what they want by offering personalized information, improved searching, and a varied services on their site (Duarte et al. 2018). The web portal allows users to access massive volumes of data in one location, reducing the monetary expenses, effort, and time involved with information seeking (Verhoef et al. 2007) and improving the customer search experience. Because to advancements in knowledge, increased use of social media platforms, and increased internet usage, customers are more likely to conduct research on items before making a purchase choice (Shankar et al. 2020). Customers may receive a lot of product information through internet online only with few clicks (Huanget al. 2009). Transaction convenience includes things like quick shopping, simple payment, and simple returns (Seiders et al. 2000). The context of an online business, confirmation responses, a simple checkout procedure, fewer payment failures, a variety of payment alternatives, and pricing consistency are all important aspects of transaction ease (Chang et al. 2010, Mahapatra 2017, and Reimers and Chao 2014). Customers must typically queue in branch banking, where convenience relevant to transaction is one of the most important elements pushing consumers to migrate to online platforms, where transactions are to be completed in only a few clicks (Wolfinbarger and Gilly 2003).

When customers want a product immediately and are unable to wait for delivery, they must purchase it from a physical existing store (Barbopoulos and Johansson 2016). As a result, to improve user experiences, service providers should assure instant ownership of the goods via online platforms. Similarly, in the case of mobile banking, instantaneous ownership is available after a few taps, effectively adding value for customers (Islam et al. 2019). However, through physical banks existence, customers are required to appear to the banks many times to obtain a given financial service, resulting in a wastage of time, money, and energy on the part of customers. Consumers may be enticed to utilise services of mobile banking to time saving, money, and hardwork by transacting online (Shankar and Kumari 2016).

To protect customers from cybercrime, most Indian banks have implemented customer-friendly banking services with rigorous security features. Because of the convenience, rapid access, and time-saving qualities of internet banking, it is becoming increasingly popular, about 57 percent of Indian respondents prefer banking online utilising the internet and other financial services (Malhotra & Singh 2009). Customers were exposed by online banking (Bhanu et al. 2019).

It was through products that the notion of convenience was born. Copeland (1923) proposed a product categorization for consumer which described convenience aspects as “distributed things that demand minimum time, physical, and mental effort to obtain” (Berry et al. 2002; Yale and Venkatesh 1986). Other definitions of convenience focused on resources like the time and effort spent shopping for a product by the consumer (Brown 1990).When it comes to buying items, Morganosky (1986) describes a convenience-oriented customer as someone who wants to “complete a task in the shortest amount of time with the least amount of human energy.”

Convenience relevant to the service reduces the time taken and energy required to acquire and use a service, which improves satisfaction ratings (Colwell et al. 2008). Service easiness was shown to be a strong predictor of overall satisfaction in the context of Canadian personal cellular phone and internet use (Colwell et al. 2008, Kaura 2013). In marketing literature, customer satisfaction has long been seen as a crucial notion (Erevelles and Leavitt 1992, Oliver 1997). Customer experience is described as a sequence of interactions between a customer and a product, a company, or a department within a corporation that result in a response. This is an extremely personal experience that necessitates the customer's involvement on numerous levels (Brakuset al. 2009).

Retailers may set themselves apart by making their products and services more accessible, i.e., more convenient. One of the most significant components in generating a positive shopping experience is the convenience of
shopping at a business. Convenience refers to the ability to reduce non-monetary cost such as time, energy, and effort while purchasing or using items and services (Berry et al., 2002, Farquhar and Rowley 2009, Seiders et al. 2007).

‘Convenience pertains to certain traits essential to make an activity more convenient,’ according to (Reimers and Clulow 2009, Srivastava 2014).

3. Methodology
The objective of this article is to find the relationship between the customer convenience and the technological changes in the banking sector. The employees are in contact with customers thus they are best people to ask what could be done better to adapt to the change.

To apprehend the reasons for the modifications within the offerings of the banking sector a questionnaire was framed to gather the responses from the banking executives of diverse grades, branches and banks. The respondents have been from many locations in India. There changed into no geographic hassle in gathering responses because the offerings supplied with the aid of using all of the banks have been comparable and each financial institution has the technological upgradation very often.

The questionnaire consisted of close ended questions making sure can be answerable in less time as the targeted respondents were executives of bank with time limitation. The questionnaire was floated through the google form to the experts in the bank. Convenience sampling was chosen and 120 responses were collected.

The data was analysed through MS-Excel graphical representation. Later used the MATLAB to find the correlation between cause for changes in services of banking parameters and technological changes parameters. Kendal correlation test and Pearson correlation tests were used for data analysis. The evaluation confirmed totally low degrees of significance of correlation which isn't always acceptable.

The data was tested using the qualitative analytical tool NVIVO software. Text search, Word count and Tree mapping in NVIVO software gave the similar results highlighting the customer convenience.

There were high limitations in the data collection due to COVID-19 and the respondents time limit. Multiple approaches to the banks have been done to gather the data.

4. Data Collection
This study is based on the primary collection of data through questionnaire survey from the bank employees. The quantitative research was conducted as an online and offline survey. The survey took place in the month of February 2021. The questionnaire was shared with nearly 300 employees altogether online as a google form and offline by personally contacting them. Respondents were the bank employees from the nationalized and private banks. As all the banks irrespective of branches provide same services and products, all banks were considered.

The convenient sampling was used for data collection. The questionnaire consisted of 42 questions among which first 10 questions were relevant to the demographic variables and others to technological changes, mobile banking usage. Mobile banking was chosen as it is considered under the technological change and high among usage.

The questionnaire included:
Demographic parameters - age, gender, educational qualification, designation, work experience, department, bank name, place, management level

Customer satisfaction parameters – satisfaction level from the banks, reason behind the initiation of digital banking services, reduction in customer footfall, redressal of the complaints, customers feedback, transaction cost, solving of complaints online, reason for change in services of the bank, server availability, server maintenance.

Technological changes parameters – mobile banking services, reason behind initiation of banking services, frequency in technology upgradation- addition of the apps-sunset of the apps, security in usage of the apps, significant digital banking services.
The questions were close ended for getting the qualitative responses with a 3-point Likert scale depending on the type of the question relevant to the technology or customer satisfaction dimensions. The close ended questions and this scaling were chosen understanding the customers time and interest in answering the questions.

Data was collected from 120 respondents using the questionnaire through online and offline out of which 110 were valid responses.

The responses were visualized initially through MS-excel, imported the data in MATLAB to find the correlation. Later the data was tested in MATLAB for correlation among the attributes of customer satisfaction and technological changes. Further for the best results, the NVIVO software, a qualitative data analytical tool was used as the data was qualitative.

5. Results and Discussion

The correlation between the attributes using the MATLAB has shown that the attributes are dispersed that is negative correlation. The same data was used for analysis through qualitative tool NVIVO which has highlighted Convenience through WORD COUNT, TEXT SEARCH, TREE MAPPING. The findings show that customer convenience is the main cause for technological upgradation in the banking sector compared to other dimensions like profits and competition, also for the better results of qualitative data, the qualitative analytical tool must be used.

5.1 Graphical Results

The data has been represented using graphs considering the responses of few questions relevant to customer convenience and technology. As mobile banking is highly prioritized by most of the customers, it is considered as one of the technological upgradation services and is used in questionnaire.

![Provision of Digital Banking Services](image)

Figure 1. Banks providing digital banking services.

Figure 1 shows that 87% of customers’ banks provide the digital banking services that gives the scope of technology. Figure 2 shows that 97% of banks offers mobile banking facility i.e., almost all the banks are giving this facility. Figure 3 shows that according to the respondents the digital banking services are offered to the customers due to customer convenience rather than acting for the change due to high competition or to maximize the profits. Figure 4 represents P1=1-25%, P2=26-50%, P3=50-75%, the percentage of reduction is customer footfall. Through the responses it shows that there is reduction 25% in most of the banks.
Figure 2. Responses to mobile banking facility of their account existing bank

Figure 3. Reason behind initiating digital banking facilities.

Figure 4. Percentage of customer footfall into banks since last three years due to online banking services
Figure 5 highlights the reasons for the changes in the banking services where customer convenience stands first, competition stands second and then comes the credibility. The data has been tested further through qualitative analytical tool due to less significance in the data collected of the various attributes. This data has been tested through NVIVO software for furthermore relevant results. Figure 6 shows the word count of the responses collected through questionnaire survey through NVIVO software, the high frequency matches with the convenience. Figure 7 shows the text search of the collected data through the questionnaire survey through NVIVO software, which highlights customer convenience among several variables.

Figure 6. Word count of the survey
Figure 7 Text search of the survey

Figure 8 Tree Mapping

Figure 8 shows the tree mapping of the collected data through the questionnaire survey through NVIVO software, which highlights customer convenience among several variables. All the results analysed through word count, tree mapping, text search queries using the NVIVO software showed that customer convenience is the main reason for the technological changes in the banking sector.

6. Conclusion

Customer convenience is the important dimension the banks can investigate for increase in their sales. This study results that customer convenience significantly affects technological changes in the banking sector. The study's
findings add to the marketing literature, notably in the areas of consumer happiness, convenience, and technology. The paper also makes some recommendations on how to use analytical techniques effectively with qualitative data.

References
Mortimer J. C., Two Keys to Modern marketing. The Updegraff Press Ltd., pp. 7-17, 1955.
Biography

Ms. Prabhavathi K. is a research scholar at BITM, Bellary affiliated to VTU, India. Her area of interest is retail banking and green accounting. She is currently working at NIT, Andhra Pradesh as an adhoc faculty in the department of management, School of Humanities and Management. She has published nearly 8 articles in international journals and conferences.

Prof. Dinesh G. P. is the professor in the department of management at Vijayanagara Sri Krishnadevaraya University. He had expertise in marketing and strategy. He was honoured in 2020 with ‘Distinguished Professor’ by BestrowEdutrex, ‘Visionary Leader’ by Researchers Convention and Awards, ‘Honorary Doctorate-D LITT’ by University of Central America Bolivia and many more. He has publications in more than 60 reputed journals. Also had a membership in professional bodies like Higher Education Forum, MTC Global, AIMS International, Houston etc.

Mr. Ravi Kanth B. K. is currently pursuing his Ph.D in the department of management from the National Institute of Technology, Andhra Pradesh. Worked at middle management in State Bank of India as a manager-Banking Operations, also handled various portfolios which mainly included business analytics, business performance monitoring, technical assistance in implementation of mobile app YONO along with various other mobile banking apps dealing with digital payments for dealing with digital payments for retail and commercial segment like BHIM SBI PAY, YONO Lite.

Prof. CSP Rao is a Director for National Institute of Technology, Andhra Pradesh. He has 30 years of teaching experience and had excellent research knowledge. He guided more than 30 PhDScholars, published more than 110 technical papers in reputed journals and presented nearly 110 papers in national and international conferences. Published 11 books and awarded as ‘Engineer of the year-2008’, ‘Scientist of the year-2008’, ‘Recognition of R&D services for completion of 10 PhDs-2013’. Received the award of ‘Exemplary academic leader of the year award-
2021’ from the Centre for Education Research & Growth. Organised 22 STTP and conferences, 10 programmes on National Education Policy 2020. Nearly 10 projects were undertaken and few are in progress. He has membership in professional bodies like Institution of Engineers and Indian Society for Technical Education.