
The mediating effect of customer satisfaction on the relationship between service quality and customer loyalty in Digital Banking

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Introduction

Banks play a significant role in bolstering the Indian economy. People in all walks of life, from the elite class to the people below poverty line, access banks for various financial needs. Providing an array of services, the banking sector has undergone radical changes. The digital transformation had also smitten the banking sector and there is seamless integration of technology at various levels. However, there is the question of customer loyalty associated with these services. Banks today are completely customer centric and the customer has a wide choice to choose from.

The customer expects a hassle free service anywhere and everywhere. Security and speed are the other things; the customer is very particular about. Banks now have the crucial task of identifying the customer needs, designing the service deliverables, satisfying them and retaining them. Any detour from the customer's expectations would lead to customer switch over.

Need for the study

Banking industry is characterized by identical products and rigid industry norms. Unlike other industry, differentiation here is tedious. It is only by the service deliverables, product mix, value added benefits, that a bank can satisfy and retain its customers. Mass banking is now replaced by class banking. The private banks and foreign banks had made the competition tougher. While each bank, competes with its own strategy to thrive and sustain in the industry, it is imperative to identify the expectation of the customer and the delivery of that service by the bank.

The trust of the people has to be earned to sustain in the industry. Some of the recent fiascos in the Indian banking sector had affected the customer loyalty to a great extent. In addition to this, banking frauds by third party agencies, digital hacks and less trust on the system had increased the onus on the banks to provide flawless service to earn back the customer loyalty.

SERVQUAL scale developed Parasuraman et al (1985, 1988) by for measuring service quality is the pioneer scale based on which other scales had emerged.. Cronin and Taylor (1992) made an endeavor for a better model, which they claimed and advocated a performance-only

conceptualization namely, the SERVPERF. The SERVPERF scale is considered superior because of scale efficiency and competency in reducing the number of items to be measured by 50% (Babakus and Boller, 1992).

SERVPERF model is basically derived from the famous SERVQUAL model. In their initial study, they recognized ten dimensions of service quality. They include reliability, responsibility, competency, accessibility, employee's civility, communications, validity, customer's perception and awareness, customer facilities, physical facilities, and finally superficial condition of organization. In their further study, these ten factors were made into five, encapsulated as follows:

Table I: Five Dimensions of SERVQUAL

S No	Dimensions	Meaning
1	Reliability	Includes ability of doing committed services in sound and reliable manner.
2	Assurance	Refers to knowledge and civility of employees and their ability to transmit reliability and validity
3	Tangibles	Superficial conditions of physical facilities, equipment, employees, and communicational instruments
4	Empathy	Refers to providing individual attention toward every customer.
5	Responsiveness	Willing to help customers and offer rapidly services for them

Source : Parasuraman et al, 1985

After the liberalization policy, spanning a decade, the Foreign Direct Investment policy was also followed, thus creating a need for studying the status of service quality. While much attention has been given to such studies in developed nations, (Herbig and Genestre, 1996) there is a paucity of studies, with respect to service performance in digital banking in developing nations. (Jain and Gupta, 2004). Digital banking had been an emerging concept and while studying the service quality dimensions, the factors contributing to each dimension is drastically different from the conventional banking.

Perceived Service Performance

The model of SERVQUAL (Parasuraman et al., 1988) with five dimensions evaluated the impact of service quality on customer loyalty among bank customers in Penang, Malaysia where customer satisfaction was the mediating factor. The findings emphasize that improvement in service quality can increase customer loyalty. The prominent service quality dimensions are reliability, empathy, and assurance. (Penang & Kheng, 2010)

The loyalty of customers is increased by service quality, customer satisfaction and brand loyalty programs. The research was conducted among the customers of Banking sector in Pakistan. Increasing the quality of services helps in enhancing customer satisfaction and loyalty. The loyalty programs not only hold the account holders intact but also enables them to refer the banks

to their friends and families. (Hafeez & Muhammad, 2012) Research in Ethiopian banking sector had emphasized the existence of positive relation between dimensions of service quality and customer satisfaction. Empathy and responsiveness are the important factors in satisfaction followed by tangibility, assurance and reliability. Enhanced service quality increases customer satisfaction which enables higher level of customer commitment and loyalty. (Kumbhar, 2014)

Bhavesh Vanpariya and Parthasarathy Ganguly (2018) had made an effort to assess the Indian banking sector using both SERVQUAL and SERVPERF. It was found that both apply good to the banking industry in India. Though the findings cannot be generalized due to the sample size and diversity of the product mix in banks, there are some significant observations. Service quality has positive and significant correlation with customer satisfaction, positive word of mouth and loyalty intention. The banks have to be highly responsive to the customer needs. Aspects such as hassle free cash withdrawal facilities, payment of utility bills, safe customer parking are essential ingredients of service quality and customer satisfaction. The role of technology is all pervasive and the customers are becoming all the more tech savvy. New technology and interactive marketing can create new opportunities for bank. The technology helps in simplifying and speeding up the service delivery.

Service Performance is an important antecedent in customer satisfaction and retention. Rather than looking at the determinants of service performance from the conventional banking point of view, the various expectations of the customers with respect to digital banking has to be considered. The Wall Street Finance Report states that online banking has been identified as the third wave of the Internet revolution for this industry (Yu, 2008: 281). The banks have to focus on the most important dimensions of e-service quality to consider more addition to diversification of internet services and adding different options, so that they will be able to attract new customer, while preserving the old ones. (Salarzahi et al, 2012)

Osei et al (2016) have highlighted that e-banking service qualities could be viewed on three antecedents, namely the qualities that best describes the existence of e-banking systems and services, the qualities that defines the security concerns of e-banking systems and services and the qualities that examines the performances or functioning of e-banking services.

Joseph et Al (1999) had proposed six dimensions in a study of online banking service quality. They are convenience, accuracy, feedback/complaint management, efficiency, queue management, accessibility and customization. The dimensions are subject to a change now, given the changing technology and the increased exposure of customers to these technologies and their level of acclimatization with them.

Yang & Fang (2004) explored the online banking systems and had suggested 6-dimensions of service quality in relation to online banking service quality measurement, namely: reliability, responsiveness, competence, ease of use, security and product portfolio.

Loonam and O'Loughlin (2009) studied the internet banking service quality and had emphasized ten dimensions in online retail banking service quality. Notably, web usability,

security, information quality, access, trust, reliability, flexibility, responsiveness, self-recovery and personalization/customization.

Service quality and customer satisfaction had showed the highest correlation in the study by Jalagat et al (2019). Managers need to give the highest priority on aligning the bank's products and offerings in promoting the best service for enhanced satisfaction. Continuous improvement on service quality would ensure long-term customer satisfaction and customer loyalty.

The above reviews make it clear that service performance in the digital era is not the same as that of the conventional era. The banking sector has to meticulously look at the factors which are preferred by the customers and incorporate that in their system to delight the customers and retain them.

Challenges in the digital revolution

While the Government and the banking industry is headstrong in its digital transformation, for an emerging economy like India, the supporting ecosystem plays a pivotal role in enabling the change. The advent of Big data, Artificial Intelligence, the digital transformation is inevitable to make use of the changing technologies. However, some of the rudimentary challenges which need to be addressed in India, before the industry marches forward are

enumerated

below:

Financial Literacy / Customer Awareness - Lack of awareness among the people to use e-banking facilities is the major constraint in India. The rural India is way backward and mass dissemination of knowledge in this aspect is recommended.

Cost – The digital India plan could be successful only if the transaction fee is very low, to start with. A revolution similar to the introduction of shampoo sachet has to happen in the financial sector, i.e., introducing at low cost to accelerate the usage in the beginning. The combined effects of banks, startups, user experience and digital literacy would pave way for success in the long run(Rai, S. (2016).

Fear factor – In India, one of the biggest hurdles in E banking is preference to conventional banking method by older generation and mostly people from the rural areas. The fear of losing money in the online transaction is a barrier to usage of e-banking. Again, digital literacy plays an important role here. The banks have to arrange adequate programmes for the literacy of their customers to transform the system.

Training - Lack of adequate knowledge and skills is a major deterrent for employees to deal with the innovative and changing technologies in banks. Training at all levels on the changing trends in IT is the requirement of the day for the banks.

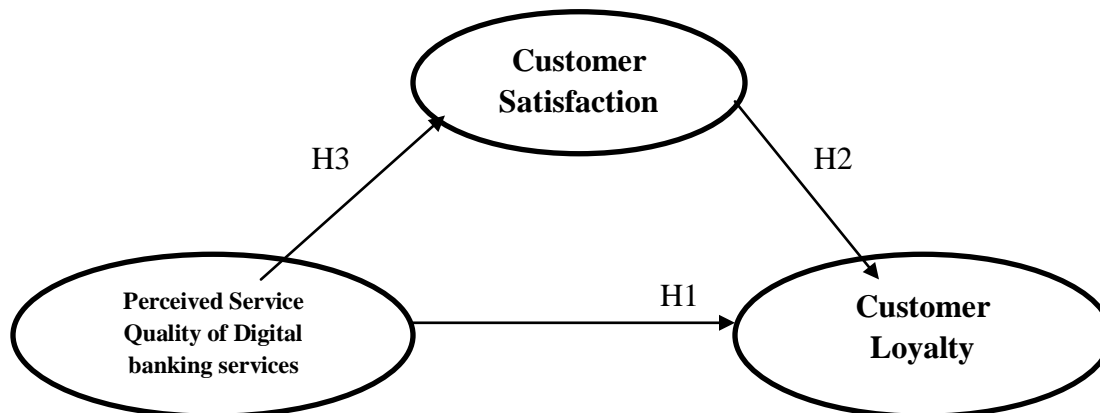
Security Risks - External threats such as hacking, sniffing and spoofing expose banks to security risks. Banks are also exposed to internal risks especially frauds by employees / employees in collusion with customers.

The conceptual framework

Based on the reviews, perceived service quality would be one of the significant factors leading to customer loyalty. Customer satisfaction is seen as a prime indicator of customer

loyalty (Cronin et al., 2000) Customer satisfaction plays a vital role in influencing customer loyalty and hence the mediating effect of customer satisfaction on the relationship between perceived service quality and customer loyalty is proposed.

Figure I: Mediating Effect of Customer Satisfaction on the relationship between Perceived Service Quality of digital banking services and Customer Loyalty



OBJECTIVES OF THE STUDY

The principle objectives of the study are

1. To conduct a review on the existing literature on perceived service performance in the digital era.
2. To study the relationship between service quality and customer loyalty.
3. To study the relationship between service quality and customer satisfaction
4. To study the mediating effect of customer satisfaction on the relationship between service quality and customer loyalty.

Hypothesis

H1: Service quality has a positive effect on customer loyalty

H2: Customer satisfaction has a positive effect on customer loyalty

H3- There is a mediating effect of customer satisfaction on the relationship between service quality and customer loyalty

METHODOLOGY

Data for this study was collected from customers of digital banking from Chennai, Kancheepuram and Chengalpattu and covered urban, semi urban and rural of these regions. The questionnaires were administered in person and through email. The respondents are requested to fill the questionnaire comprising the questions related to service quality, customer satisfaction and customer loyalty. The questionnaire were distributed to 950 people who use digital service provided by their bank and out of which 632 were found to be complete and usable, yielding the response rate of 66.53%. Among this, 408 (64.56%) were male and 224 (35.44%) were female.

334 (52.84%) samples are less than 35 years of age, 148 (23.45%) are between 36 and 40 years and 150 (23.71%) are above 40 years.

Instrument Used

The questionnaire has four parts: the first part consists of demographic information like age, gender, experience. The second part consists of questions capturing “customer loyalty. The third part had captured the dimensions of “service quality”. Item measurements for the six dimensions of web interface, interaction, reliability, responsiveness, assurance and empathy had been used C Jayawardhena,2004. the fourth part capturing questions related to “customer satisfaction”, these items were adopted from (Ariff et al, 2013).

The factors of the questionnaire were measured using the Likert scale. The items are tested with EFA (Exploratory Factor Analysis) for standardization and reliability of the items was tested using Cronbach’s alpha test. It is found that all loadings in factor analysis are between 0.852 and 0.997, which is good explaining the tested factors. Table 1 represents the EFA loadings, Variance % and reliability values.

Data Analysis

Data analysis was conducted using SPSS statistical package. The EFA and reliability test were obtained using dimension reduction and Cronbach’s alpha. Structural equation modeling was used to predict the mediating effect of customer satisfaction on the relationship between service quality and customer loyalty.

RESULTS

EFA Results

We examined the measurement models with all study variables: web interface, interaction, reliability, responsiveness, assurance, empathy, customer satisfaction and customer loyalty. All variables were entered into an exploratory factor analysis, using unrotated principal components, and forcing to extract one factor. The factor emerged accounted for less than 50% of the variance . Thus no general factor is apparent (Podsakoff, MacKenzie, Lee & Podsakoff, 2003).

Table II :EFA Table

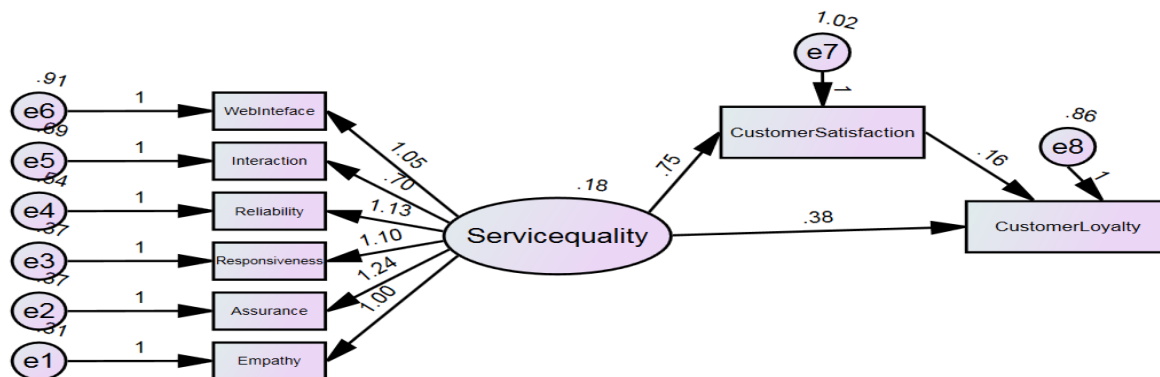
Factor	Items	Loading s	Eigen Value	% of Variance Explained	Cronbach Alpha
Web Interface	Website navigation of my bank is simple	0.892	3.253	17.134	0.873
	My bank’s website is regularly updated	0.870			
	My bank’s website has a neat layout and visually appealing	0.852			
	My Bank’s website has relevant and accurate information and it is	0.885			

	understandable.				
	My Bank's website has interactive features	0.879			
Interaction	Logging into my Banks's account easy and server is fast	0.979	5.70	46.430	0.852
	My bank's digital services are available 24x7	0.974			
	I can log into my Bank's account at from any part of the world without additional plug ins.	0.992			
	I can easily get into touch with my bank virtually	0.997			
	I can speak with a person with my bank, in case I have problems with my account.	0.962			
	I can determine my own passwords	0.979			
Reliability	My Bank delivers the service as promised	0.892	11.158	20.585	0.898
	My Bank does not create undue delays in service	0.852			
	I carry out various transactions through my bank.	0.870			
	My bank allows me for easy retrieval of information and transaction	0.879			
	My Bank helps in troubleshooting errors.	0.885			
Responsiveness	My Bank responds to my queries promptly.	0.982	12.189	21.560	0.984
	My Bank provides me with personalized newsletters/alerts to update me and save cost	0.996			
	My bank's website has a FAQ (Frequently Asked Questions) section to help/guide me for my common problems	0.975			
Assurance	My bank's account makes me feel secured.	0.857	3.543	18.134	0.878
	My Bank is very accurate in their responses to my queries/requests	0.847			
	My Bank keeps accurate records of my account transactions	0.890			
Empathy	My Bank understand the needs of their customers	0.882	12.710	24.426	0.890

	I receive personalized response for my problems from my Bank.	0.894			
	It is easy to apply for additions to my account with my Bank .	0.882			
	My Bank shows genuine concern and sympathy in their responses to my problems	0.894			
Customer Loyalty	My bank is the first preference for all my transactions	0.772	5.75	43.426	0.826
	My bank is now my favorite	0.691			
	I would celebrate the growth of my Bank and spread positive news.	0.759			
	I would recommend my bank to others	0.670			
	Switching to other banks is not my option	0.823			
Customer Satisfaction	I am satisfied with the efficient system availability of online services.	0.972	10.158	22.885	0.894
	I feel satisfied with employees' knowledge of service to recommend me	0.615			
	I am satisfied with the responsiveness of the employees in explaining the online service when contacted.	0.960			
	I am satisfied with the privacy and security features provided.	0.965			
	I feel satisfied with the safety of the bank	0.952			
	I am satisfied with the website style and ease of using it	0.955			

The structural model was tested using SEM. In this model, it is hypothesized that customer satisfaction mediates the relationship between service quality and customer loyalty. The structural model is given in Figure III along with estimates.

Figure II: Research model in SEM



SEM Results

Based on the literature, the proposed model has been built with the help of correlation, and the SEM results obtained are presented in Table 2. In this model, the fitness of the model is tested. Though χ^2 / df (2.527) value is significant ($p=0.000$) stating the difference between observed and estimated covariance matrix, the normed χ^2 value is less than 3, which satisfies the fit indices (Hair et al., 2006). It is confirmed with Good FIT Index (GFI) (0.955) and AGFI (0.916); both are more than the criteria required for accepting the model. Besides, the error values of the model RMR (0.044) and RMSEA (0.078) are near 0, confirming the fitness of the model.

Table III : SEM Output

Fit Indices	Values
χ^2 / df	2.527; $p=0.000$
GFI	0.955
AGFI	0.916
RMR	0.044
RMSEA	0.078

Further, it is observed that the estimated value between service quality and customer loyalty before introducing the mediating variable is (0.748) and the model is statistically significant. But, after introducing the mediating variable customer satisfaction in the model, there was substantial improvement in the model; the estimate value is (0.156) and the model is statistically significant. Service quality has a positive significant relationship with customer loyalty, supporting H1. Customer satisfaction has a positive significant relationship with customer loyalty, supporting H2. And also from the SEM results, it is seen that the mediation effect is partial because the impact of service quality on customer loyalty is still statistically significant despite a reduction in the regression estimate supporting H3.

Table IV: Hypothesis Testing Results

Hypotheses	Independent Variable	Dependent Variable	Estimates	P value
H1	Service Quality	Customer Loyalty	0.748	0.000
H2	Customer Satisfaction	Customer Loyalty	0.381	0.000
H3	Service Quality (after introducing mediating variable, i.e., customer satisfaction)	Customer Loyalty	0.156	0.000

DISCUSSION

In an emerging economy like India, digital banking is gaining momentum and massive digitalization would take time as customers are yet to acquaint with the technology and rural penetration of the service is yet to happen. Educating the customers on its usage and then making them avail the service is the major challenge. The demographic variations such as age, educational qualification, rural/urban divide and occupation has a huge impact on the use of digital services. When this new technology is being used, the customer has to be provided with meticulous services so that he/she builds a strong affinity for the brand and develops loyalty. Hence customer loyalty is very important in retaining the customers of a new service. Customer satisfaction of a new technology depends on the ease of usage, security in usage, knowledge imparted for usage. The banks have been successful in imparting this and there is a positive relationship with customer loyalty. The mediation effect is partial because the impact of service quality on customer loyalty is still statistically significant.

CONCLUSION

The Embanking service performance is an emerging area of research and the Indian banking sector, being in the nascent stage of digitalization, has to carefully design the factors so they enable customer satisfaction. Any glitches in the operation, cumbersome user interfaces, complicated methods are a strict No for the Indian customers who have a long way to go in their digital literacy. The effect of digital service quality on customer loyalty with the mediating effect of customer satisfaction had been studied and found to have a positive significant relationship. The conventional servqual or servperf factors would not hold good for the digital era and the banks have to choose their factors wisely. Knowledge management is a key factor to implement this effectively. A bank's capacity to distinguish client needs, client portions relies upon how viably it gathers, oversee and use client information. Information stacking isn't an ability, yet changing over the information into business advantage is a genuine ability.

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