Effect on E-banking on Customer Satisfaction in Kollam District of Kerala

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ABSTRACT

A customer- focused approach is vital for becoming successful in banking sector in this world of global competition. Taking into consideration the evolution of pandemics, which lead to virtually all human needs being met in virtual form, online banking is the best method for customers to feel satisfied. In these difficult economic times, it is essential for banking organizations to provide top tier online banking services to their customers. Therefore, it is relevant to analyze the key factors that impact customer satisfaction with e-banking. Using Google forms, we collected primary data from Kollam district of Kerala for this study.

Keywords-Customer Satisfaction, Banking, Website Design, Efficiency, Responsiveness, Convenience, Security

1. Introduction:

In today's world of Intensive competition, technological development, new social trends, dynamic economic and environmental factors have affected the enterprises with much broader fluctuations. As a result of strong impact of customer demand on the organization, special attention is required to be given in the area. In a developing country like India, where customers possess a varied form of needs and desires it becomes legitimate for the banks and service providers to offer quality services speedily and efficiently to meet the customer's expectation. An organization that provide much attention to customer's need, satisfaction and feedback, will be succeeded without any doubt. As a result we need to understand the factors that can affect the satisfaction. It is clear that technology continues to have an enormous impact on service companies of all kinds, and the financial services sector is no exception. Concepts, techniques, policies, and implementation strategies related to information and communication technology applied to banking services have become a subject of fundamental importance and concern to all banks and, indeed, a precondition for competitiveness on both a local and a global basis in Banking Industry. Business environment in financial sector is extremely dynamic and experience rapid changes and demands banks to serve their customer electronically, thanks to technological innovations. The COVID-19 pandemic thrust the retail banking industry into embracing a virtual –first mindset. With purchasers pressured to apply online or cellular banking alternatives, the use of non branch banking answers has accelerated dramatically those financial establishments that were digital transformation leaders have benefited from this behavioral shift, while follower institutions have to play catch up. There are mainly four electronic commerce activities internet users perform. These activities require a banking relationship and are: shopping, banking, investing, and online electronic payment for Internet services. The gigantic increase of the internet is changing the way businesses interact with consumers as most businesses are now conducted using virtual reality. It is this introduction of e-commerce as a medium of payment that has urged banks to take a great leap from the traditional banking services, offering a service vigorously through the medium of internet, which has come to be known as internet banking or e-banking. In the contemporary times, with the emergence of internet as a major channel of service delivery and current pandemic situation the need for a scale to measure the service quality in electronic medium of services was felt greatly. Hence, service quality was taken up by the research scholars specifically in terms of the e-services which lead to the

development of various models that helped in measuring e-service quality in the services sector. As a result, various models have come up.

1.1 Literature Review:

Consumer satisfaction is the key to success for any business. Oliver defined customer satisfaction as a judgment that a product or service feature, or the product or service itself, provide (or is providing) a pleasurable level of consumption related fulfilment, including levels of under or over fulfillment[1]. Customer satisfaction is the difference between customer perception of the service received and the customer expectation from the service[2]. A customer-centric company will also enhance its eminence and portrayal, reduce customer departures, and pay greater attention to customer needs as a consequence of customer satisfaction. By doing so, they will create barriers to switching and improve their relationship with customers.

An attempt has been made by Sadaf Firdous (2017) to study the internet banking service quality and its influence on customer satisfaction. This study also revealed that some constructs such as efficiency, system availability, fulfillment, privacy, responsiveness, and contact and website design to be the significant dimensions of internet banking quality. Similarly the study done by *SC Vetrivel, J.Rajini, V.Krishnamoorthy* (2020) showed that out of several dimension, efficiency and trust played a major role in determining the satisfaction of customer. The main five factors obtained from the factor analysis like Responsiveness, Convenience, Trust, Efficiency of the website, and Security have been considered as independent variables, Customer Satisfaction has been taken as the dependent variable. Additional dimensions like Responsiveness, Convenience and Security do not have any significance

According to *Worju.G, Tilahun A and Tafa MA* (2015) the majority of current e- banking users are youth within the age group of 18 to 35 years. Gender wise it is male, who is dominant here and participation of business men and women is very less. The study also found out that there is a great relation between a demographic characteristics and customer satisfaction in e-banking than ordinary banking. Another study by *Areeba Toor , Mudassir Hunain , Talha Hussain , Shoaib Ali & Adnan Shahid* (2016) conducted in Pakistan shown that people evaluate e- banking service quality majorly by 3 out of 5 SERVQUAL Model is Responsiveness, Reliability, Assurance. Another notable point is that people like to use simple (easy to use) technology.

According to Business Standard newspaper's article "Over 57% consumer prefers internet banking in Covid-19 era" showed that about 57% of the customers (while it was 49% in pre-covid times) had an inclination towards e-banking during covid-19 pandemic as per the report by World Retail Banking Report 2020 published by Capgemini and Efma.The report shows that the global financial sector is in the focal point of a historic transformation as quick, digitally native non-traditional players continue to champion customer experience and redefine the long-held principles to gain significant market propulsion.

Most of the researches of the researches are done using cross sectional analysis and limited area is taken into consideration as result it cannot be considered as the general trend of the nation. Majority of the study failed to segregate the banks into public, private and cooperative sectors, i.e., sector based study haven't been conducted.

1.2 Objectives of the Study:

The objective of the study is the following

1. To identify the various dimensions of internet banking service quality.

2. To analyze the relationship between the customer satisfaction and the various internet banking service quality dimensions.

3. To study the impact of the internet banking service quality dimensions on the satisfaction of customers.

1.3 Hypothesis of the Study:

From the above objectives the following set of hypothesis were framed:

H1: Efficiency has a significant positive association with on customer satisfaction

H2: Convenience has a significant positive association with customer satisfaction

H3: Security has a significant positive association with customer satisfaction

H4: Responsiveness has a significant positive association with customer satisfaction

H5: Website design has a significant positive association with customer satisfaction

1.4 Research Methodology:

The research is conducted using primary data. For the data collection, the researcher has used questionnaire method from 54 residents of Kollam district of Kerala. Taking into account of covid-19 pandemic, the survey is conducted through online via Google forms. The researcher used closed ended questions in the questionnaire. From the survey, the researcher has accumulated 54 responses. Hence the sample size is 54. The research was conducted using

a structured questionnaire adopted from Parasuraman study, which includes the dimensions of E-S Qual. The questionnaire (will be consisting) consist of three sections.

• Customer demographics: The questions in this section were related to gender, age. Area of living and education.

• E-S-QUAL scale: Respondents in this section rated the Web site's performance on each scale item using a 5-point scale (1=strongly disagree, 5=strongly agree).

• Customer satisfaction: Respondents in this section were asked to rate their satisfaction level with the E-Service quality of the banks using a 5-point scale. (1=strongly disagree, 5=strongly agree).

1.5 Data Analysis:

1.5.1 Demographic Profile of the Respondents:

From the data collected the following demographic details have been obtained.

Table 1.5.1- Participation Level of Each Gender in Survey

Sl.No	Gender	Number	Percentage
1.	Male	15	27.8%
2.	Female	39	72.2%
Grand Total		54	100%

Source: Primary Data

The table 1.5.1 implies that 27.8% of the total participants are male while major percentage of the participants that is, 72.2% is female.

Table 1.5.2 – Age Group Composition

Sl.No	Age Group	Total number	Percentage
1.	Below 18	6	11.11%
2.	Between 19 and 35	28	51.85%
3.	Between 36 and 60	17	31.48%
4.	Above 60	3	5.56%
Grand Total		54	100%

Source: Primary Data

Table 1.5.3: Area of Living:

The major percentage of share is taken by age group between 19 and 35 (51.85%) while the minor share (5.56%) is taken by the age group of above 60.

Table 1.5.3: Area of Living:

Sl.No	Area of Living	Count	Percentage
1.	Rural	15	27.78
2.	Semi Urban	29	53.70
3.	Urban	10	18.52
Grand Total		54	100%

Source: Primary Data

A major percentage is obtained by 53.70%

Table 1.5.4 Educational Qualification:

Sl.No	Educational Qualification	Total	Percentage (%)
1.	Less than a high school diploma	1	1.85
2.	High school diploma or equivalent degree	15	27.78
3.	No degree	1	1.85
4.	Bachelor's degree	20	37.04
5.	Master's Degree	12	22.22
6.	Doctorate Degree	5	9.26
Grand Total		54	100

Source: Primary Data

The major percentage of participants ie, 27.78% have educational qualification of High school diploma or equivalent degree while the least percentage of participants (1,85%) have less than a high school diploma and also no degree.

Table 1.5.5 Income Level

Sl.No	Annual Income (INR)	Count	Percentage (%)
1.	less than 2 lakhs	29	53.70
2.	2 lakhs to 5 lakhs	13	24.07
3.	Between 5 lakhs to 10 lakhs	6	11.11
4.	More than 10 lakhs	6	11.11
	Grand Total	54	100

Source:Primary Data

1.5.6 Sector in which the participants have bank

Table 1.5.6 table showing the sector in which the participants have bank accounts

Sl.No	Sector	Count	Percentage
1.	Foreign Sector	1	1.85
2.	Private Sector	20	37.04
3.	Public Sector	33	61.11
	Grand Total	54	100

Source: Primary Data

From the above table 1.5.6, it is revealed that, a good percentage of participants (61.11%) have their bank accounts in Public sector while a moderate percentage of participants (37.04%) have bank accounts in Private sector and the least (1.85%) in foreign sector.

Awareness:

Table 1.5.7 - The table showing the awareness level of participants about online banking

Sl.No	Category	Count	Percentage (%)
1.	Participants aware of E-banking	52	96.30
2.	Participants unaware of E-banking	2	3.70
	Grand Total	54	100

Source: Primary Data

From the above table we can conclude that about 96.30% of the participants are aware of E-banking while 3.70 of them are unaware.

2. Testing of Hypothesis:

Efficiency

The Null hypothesis and Alternative Hypothesis is given by **H1** and **H1*** respectively.

H1: Efficiency has a significant positive association with Customer Satisfaction.

H1*: Efficiency has a significant non positive association with Customer Satisfaction.

Table 2.1 -Hypothesis testing result for Efficiency

Efficiency		*How do you rate your previous online banking experience?*
Mean	4.290123457	4.407407407
Known Variance	0.342	0.54
Observations	54	54
Hypothesized Mean Difference	0	
Z	-0.917700934	
P(Z<=z) one-tail	0.179387729	
z Critical one-tail	2.326347874	
P(Z<=z) two-tail	0.358775459	
z Critical two-tail	2.575829304	
SOURCE – PRIMARY DATA		

Using the Z-test in the data sample, we have found that the mean value is 4.290 (Approx.) and Known variance is 0.342. Since the P (Z<=z) two-tail value (0.35) is greater than the alpha Value 0.01. We can accept the Null Hypothesis (H1). Hence there is a positive association for Efficiency with the Consumer satisfaction.

Convenience:

The Null hypothesis and Alternative Hypothesis is given by **H2** and **H2*** respectively.

H2: Convenience has a significant positive association with Customer Satisfaction.

H2*: Convenience has a significant non-positive association with Customer Satisfaction.

Table 2.2: Hypothesis testing result for Convenience

Convenience		*How do you rate your previous online banking experience?*
Mean	4.6419753 09	4.407407407
Known Variance	0.29	0.54
Observations	54	54
Hypothesized Mean Difference	0	

Z	1.8920230 19	
P(Z<=z) one-tail	0.0292439 57	
z Critical one-tail	2.3263478 74	
P(Z<=z) two-tail	0.0584879 14	
z Critical two-tail	2.5758293 04	

Using the Z-test in the data sample, we have found that the mean value of Convenience is 4.641 (Approx.) and Known variance is 0.342. Since the P (Z<=z) two-tail value (0.05) is greater than the alpha Value 0.01. We can accept the Null Hypothesis (H2). Hence there is a positive association for Convenience with the Consumer satisfaction.

Security:

The Null hypothesis and Alternative Hypothesis is given by **H3** and **H3*** respectively.

H3: Security has a significant positive association with Customer Satisfaction.

H3*: Security has a significant non-positive association with Customer Satisfaction.

Table 2.3- Hypothesis testing result for Security

SECURITY		*How do you rate your previous online banking experience?*
Mean	4.098765432	4.407407
Known Variance	0.44	0.54
Observations	54	54
Hypothesized Mean Difference	0	
Z	-2.2910725	
P(Z<=z) one-tail	0.010979611	
z Critical one-tail	2.326347874	
P(Z<=z) two-tail	0.021959221	
z Critical two-tail	2.575829304	

Source- Primary Data

Using the Z-test in the data sample, we have found that the mean value of Security is 4.098 (Approx.) and Known variance is 0.44. Since the P (Z<=z) two-tail value (0.021) is greater than the alpha Value 0.01. We can accept the Null Hypothesis (H3). Hence there is a positive association for Convenience with the Consumer satisfaction.

Responsiveness:

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The Null hypothesis and Alternative Hypothesis is given by **H4** and **H4*** respectively.

H4: Security has a significant positive association with Customer Satisfaction.

H4*: Security has a significant non-positive association with Customer Satisfaction.

Table 2.4 – Table showing the responsiveness

Responsiveness		How do you rate your previous online banking experience?- Y
Mean	3.950617284	4.407407407
Known Variance	0.53	0.54
Observations	54	54
Hypothesized Mean Difference	0	
Z	-3.245052267	
P(Z<=z) one-tail	0.000587145	
z Critical one-tail	2.326347874	
P(Z<=z) two-tail	0.001174291	
z Critical two-tail	2.575829304	

Source- Primary Data

Using the Z-test in the data sample, we have found that the mean value of Responsiveness is 3.95 (Approx.) and Known variance is 0.53. Since the P (Z<=z) two-tail value (0.0011) is less than the alpha Value 0.01. We can reject the Null Hypothesis (H4). Hence there is a non positive association for Responsiveness with the Consumer satisfaction.

Website Design:

The Null hypothesis and Alternative Hypothesis is given by **H5** and **H5*** respectively.

H5: Security has a significant positive association with Customer Satisfaction.

H5*: Security has a significant non-positive association with Customer Satisfaction

Table 2.5 – Table showing the website design. (Source- Primary Data)

Website Design		How do you rate your previous online banking experience?
Mean	4.432098765	4.407407407
Known Variance	0.48	0.54
Observations	54	54
Hypothesized Mean Difference	0	
Z	0.179656019	
P(Z<=z) one-tail	0.428711312	
z Critical one-tail	2.326347874	
P(Z<=z) two-tail	0.857422624	
z Critical two-tail	2.575829304	

Using the Z-test in the data sample, we have found that the mean value of Website design is 4.4320 (Approx.) and Known variance is 0.48. Since the P (Z<=z) two-tail value (0.8574) is greater than the alpha Value 0.01. We can accept the Null hypothesis (H5). Hence there is a positive association for Website design with the Consumer satisfaction.

Findings of the Study:

The null hypothesis H1, H2, H3 and H5 has been accepted. While the Null hypothesis H4 is rejected according to the Z-test (two sample for means).

1.Using the Z-test in the data sample, we have found that the mean value is 4.290 (Approx.) and Known variance is 0.342. Since the P (Z<=z) two-tail value (0.35) is greater than the alpha Value 0.01. We can accept the Null Hypothesis (H1). Hence there is a positive association for Efficiency with the Consumer satisfaction.

2. Using the Z-test in the data sample, we have found that the mean value of Convenience is 4.641 (Approx.) and Known variance is 0.342. Since the P (Z<=z) two-tail value (0.05) is greater than the alpha Value 0.01. We can accept the Null Hypothesis (H2). Hence there is a positive association for Convenience with the Consumer satisfaction.

3. Using the Z-test in the data sample, we have found that the mean value of Security is 4.098 (Approx.) and Known variance is 0.44. Since the P (Z<=z) two-tail value (0.021) is greater than the alpha Value 0.01. We can accept the Null Hypothesis (H3). Hence there is a positive association for Convenience with the Consumer satisfaction.

4, Using the Z-test in the data sample, we have found that the mean value of Responsiveness is 3.95 (Approx.) and Known variance is 0.53. Since the P (Z<=z) two-tail value (0.0011) is less than the alpha Value 0.01. We can reject the Null Hypothesis (H4). Hence there is a non positive association for Responsiveness with the Consumer satisfaction.

5. Using the Z-test in the data sample, we have found that the mean value of Website design is 4.4320 (Approx.) and Known variance is 0.48. Since the P (Z<=z) two-tail value (0.8574) is greater than the alpha Value 0.01. We can accept the Null hypothesis (H5). Hence there is a positive association for Website design with the Consumer satisfaction.

Hence there is a positive association with Website Design, Security, Efficiency and Convenience for Customer Satisfaction while there is a non-positive (negative) association with Responsiveness for Customer Satisfaction.

Conclusions:

The emergence of the internet as a major channel of service delivery has necessitated the creation of a scale to measure service quality in electronic media. The research scholars therefore delved into analyzing service quality specifically in terms of e-services which led them to creating a wide array of models that could be used in measuring the e-service quality

in the services sector. This has resulted in the development of various e-service quality models.

The majority of current e- banking users are youth within the age group of 18 to 35 years. Gender wise it is Female, who is dominant here with majority of participants living in Semi urban area of Kollam district of Kerala

From the empirical approach of research we can say that customer satisfaction has a positive association with efficiency, security, convenience and website design. While, there is a non positive association with responsiveness.

Following areas must be given importance to maximize customer satisfaction

1. Giving more emphasis on Research and Development in technological aspect of E-banking.
2. Carrying out survey to understand strength and flaw in the system.
3. Providing 24x7 customer care support with much more efficiency.
4. Banks to be friendly to customers.
5. Real time response will be appreciated.
6. Proper communication with customers.
7. Complaints to be resolved with immediate effect.
8. Faster reflection of balance in account.

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