



Impact of Electronic Banking Services on Consumer Satisfaction Level in India

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1. Abstract

Consumers are served to be the god of the markets. Their satisfaction is of the utmost importance to any organization to keep growing. This paper aims to study customer satisfaction in comparison with traditional banking services. It also aims to determine which dimension of the electronic banking system has the strongest influence in satisfying the customers. This paper also tells the probable ways that a banking sector can use and imply in order to enhance their overall performance. The research is exploratory in nature and data is collected from both primary and secondary sources. For primary data self-designed questionnaire is floated. As a part of the conclusion, probable solutions are mentioned that can be adopted by the various organizations and banks to provide better experiences.

2. Introduction

When the financial institutes launched the e-banking services in the 2000s many consumers were sceptical about monetary transactions on-line E-banking services provided by banks. E-banking is simply the use of electronic and telecommunications services to provide various banking services. Through e-banking customers can access their accounts and can handle all the movements. However, the evolution of e-banking services has been from ATM the continuous efforts from banks have taken a lead to the Complete Online transactions widely used among all developed countries. Given there are no services available some these are web-based banking, NEFT, smart cards, mobile banking, etc. there is a direct impact of e-banking services on the level of customer satisfaction as it majorly depends on how the product and services provided meet the expectations and how the quality of services, security and some other factors like convenience, cost of services, remove the problem of geographical barriers, use of technology, awareness, and knowledge of services build customer loyalty. It is the flexible adoption of technology is the main reasons which has enabled the success of E-banking services among consumers.

The banks have gained a competitive advantage by creating direct marketing and accountable customer service environment and new streamlined business, growth in the volume of banking services, the geographical spread of operations and customer demand for quicker services and improved control and have increased use and dependency of technology. The main purpose of the study is to evaluate the level of customer satisfaction and consumer loyalty with the impact of quality of services, security and responsiveness, reliability of services, communication, efficiency, and ease of using the e-banking services in India and about all the challenges faced and opportunities ahead in front of Indian banks in terms of growth, awareness, and reliability of e-banking services provided by Indian banks.

3. Literature Review

Customer satisfaction is an antecedent of other factors, which in this paper will be studied in regards to electronic banking services. Electronic banking services cover a wide range of options like phone banking, SMS banking, online banking, etc. creating a better experience for the customer and also with up gradation in technology and society it has become the need of an hour impacting customer satisfaction on various aspects like assurance, reliability and many more.

Sanjeev Pradhan, 2019 emphasizes on security and privacy having the highest mean amongst all the variables affecting customer satisfaction level also states that there exists a positive relationship between factors of e-banking services and customer satisfaction which further has been explained by Urvashi Solanki, 2019 quoting that banks are making sincere efforts to popularize e-banking services with the adoption of new technologies. She also stated that in the future e-banking will not only be the acceptable mode rather a preferred mode. Adam Ahmad Mussa Hamid, mohanad abbas mukhtar, 2018 explains that there exists a significant difference between customer expectation and customer satisfaction, and in order to have the best experience this difference needs to minimize as much as possible. Also, the customer tends to get more satisfied with services like mobile banking, ATM, etc. Jamil h Hammoud, Rima h brizi, Ibrahim el baba mentioned that service quality is an antecedent of customer satisfaction and the presence of service quality influences customer satisfaction positively. Also, reliability is a crucial factor in determining customer satisfaction which is further supported by Vijayanand Sundaram, D Ramkumar, Poorna Shankar, 2017, who also explained that because of technology and awareness young generation is more inclined towards using these services. They also mentioned that place and location of users have the least impact on e- banking services. They emphasized on trust factor being the most important in determining customer satisfaction and loyalty. Areeba toor, mudassir hanian, Shoaib Ali Adnan Shahid, Talha husnian, 2016 also cleared that it is the responsiveness, assurance, and reliability on service quality that makes the customer experience better. These are the pillars of customer satisfaction. Sirra leone, Addids Ababa, Dashen bank, S.C., 2016 talks about a futuristic plan stating that there lies a high opportunity in expanding these services, also talks about how reduced waiting time and better movement of accounts have impacted customer satisfaction. S. fatemah, amhand j. Ansari, ezotalla esmai, 2014 explains reliability index being most effective and web designing being least in deciding customer satisfaction. Vijay m khumbar, 2014 explains

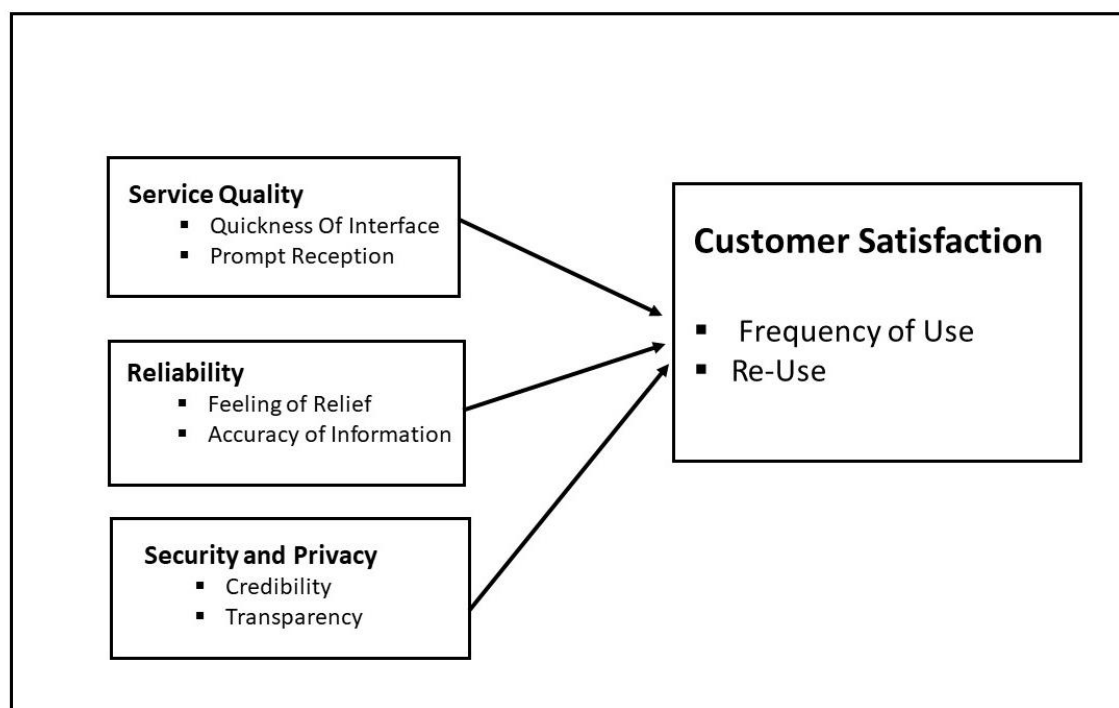
that in order to provide a customer a better experience or improve his satisfaction level there are various parameters that need to be understood and changed and these are brand perception, ease and convenience, problem handling, and security.

Simm Gyasi nimako, nana Kwame gyamfi, abdil Mumuni Moro wandaogou, 2013 focused on feedback as a weapon tool that can be used in strategic decision making.

Through these research paper, it can be concluded that customer needs to be fully satisfied in order to have their loyalty. There are various factors that determine customer satisfaction and reliability, quality and security are the most important. It can be made out from the papers that e-banking services are impacting and influencing consumers positively. But most of the studies are based on people from 18-30 years of age. So, we would like to go beyond it and explore the unexplored part to an extent.

4. Research Methodology

4.1. Analytical Framework



(Source: Author's self-complied)

4.2. Variables:

A. Service Quality: service quality stands out to be the independent variable. It is determined by the quickness of interface and prompt reception i.e., ease in doing the transactions without compromising with the quality. There exists a very strong impact of quality service on customer satisfaction (Amisha Gupta, 2019, Volume 8, issue 11). Quality is one of the service dimensions factored into customer satisfaction judgment.

B. Reliability: It is basically stated as the technical functioning of the site, which means that the information which is provided or shared on websites or during the transactions are accurate and highly reliable, and trustworthy. A high level of reliability ensures a high level of customer satisfaction (Amisha Gupta, 2019, Volume 8, issue 11).**Security and Privacy:** This factor makes sure that the customer's trust and more important information is safe with the organization/banks. Security and privacy basically state that whatever information is being shared by the customer is safe and absolutely private. Where security means safeguarding the data and privacy means safeguarding the user identity. Transparency in security and privacy increases the customer satisfaction level (Sanjeev Pradhan: 2019, vol.8, issue 3).

C. Customer Satisfaction: Customer satisfaction is determined by the frequency of purchase and repurchase made by the customer. This behaviour shows that the customer is satisfied. Customer satisfaction means, the customer is happy with services and will retain themselves. But customer satisfaction is a dependent variable and it depends upon a lot many other factors like reliability, service quality and security, and privacy (Vijay M Khumbar 2014, Volume 3, issue 4).

4.3. Objectives

Objective of this study is to explore the factors influencing customer satisfaction of E-banking services in India.

4.4. Research Questions.

The prior studies conducted in the area of customer satisfaction indicate that service quality, reliability and security, and privacy are major factors affecting customer satisfaction in the service sector. Therefore, the present study was conducted based on the following Questions:

- * To assess the impact of service quality on customer satisfaction in E-banking.
- * To assess the impact of reliability on customer satisfaction in E-banking.
- * To assess the impact of security and privacy on customer satisfaction in E-banking.

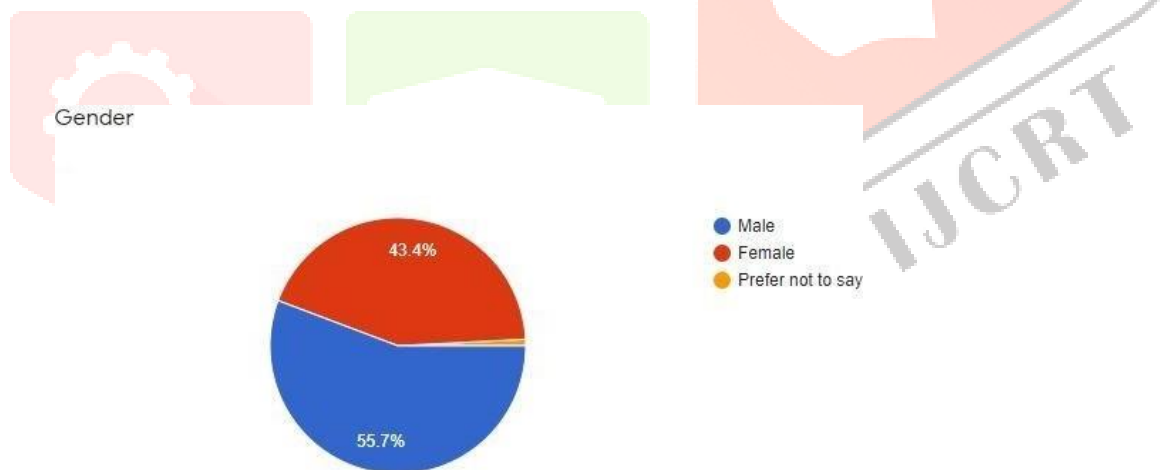
5. Sample Plan

The data were collected from customers (N=125 respondents) of working professionals from the public and private sector, students, and senior citizens in New Delhi during the month of February to March. The survey was conducted using a Likert scale-based questionnaire ranging from Strongly Agree = 1 to Strongly Disagree = 5. All the statements are positively worded and before and after the survey the author has clearly stated the objectives of the research to all the respondents. The Respondents were selected using judgmental sampling as the bank was reluctant to share the contact data and other information of the customers due to legal restrictions.

Prior to the final statistical analysis data, a screening method was used and 5 incomplete, out of order and irrelevant responses were screen out, and the remaining 120 useable and complete responses are used in the analysis. Thereby the raw data gathered were aggregates according to the dimensions under study and Exploratory Factor Analysis (EFA) test were performed using SPSS 27.0 version, to identify the major factors influencing customer's satisfaction in E banking.

6. Data Interpretation and Analysis

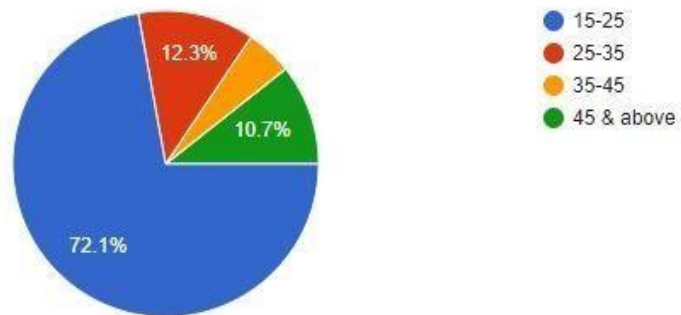
6.1. Demographic Test



(Source: Author's self-complied)

This chart states that 43% of the population consisted of male members whereas 56% of the population consisted of female members and 1% preferred not to say.

Age



(Source: Author's self-complied)

Major part of the population from our sample were between the age of 15-25 and minor part was occupied by middle age people i.e. 35-45.

6.2. Exploratory Factor Analysis

KMO and Bartlett's Test

KMO and Bartlett's test represents the sample adequacy i.e. how adequate a sample is. The value of KMO and Bartlett test should be either equal to 0.6 or more than it.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.617
Bartlett's Test of Sphericity	Approx. Chi-Square	146.114
	df	36
	Sig.	<.001

(Source: Author's self-complied)

The value of KMO is 0.617 which shows that the sample taken for research study was adequate explaining factors considered do affects the level of consumer satisfaction.

Anti – Image Matrices

Anti-image Matrices

		Degrading Service Quality	Prompt Reception of Response	Ability to Resolve my Problems	Reliable Website Interface	Ease of Understanding Clear Procedures	Availability of Real Time Financial Information	Security helps in Gaining Trust	Feeling Secure in Sharing Information online	Confidentiality of Data in E-banking services
Anti-image Correlation	Degrading Service Quality	.405 ^a	.063	.064	-.175	-.170	.108	-.051	-.020	-.018
	Prompt Reception of Response	.063	.663 ^a	-.119	-.263	-.071	-.050	.110	-.126	-.056
	Ability to Resolve my Problems	.064	-.119	.649 ^a	-.070	-.110	-.027	-.319	-.067	.108
	Reliable Website Interface	-.175	-.263	-.070	.569 ^a	.036	-.104	.052	.028	-.029
	Ease of Understanding Clear Procedures	-.170	-.071	-.110	.036	.628 ^a	-.389	.172	-.248	-.025
	Availability of Real Time Financial Information	.108	-.050	-.027	-.104	-.389	.632 ^a	-.395	-.097	.007
	Security helps in Gaining Trust	-.051	.110	-.319	.052	.172	-.395	.507 ^a	.015	-.136
	Feeling Secure in Sharing Information online	-.020	-.126	-.067	.028	-.248	-.097	.015	.693 ^a	-.367
	Confidentiality of Data in E-banking services	-.018	-.056	.108	-.029	-.025	.007	-.136	-.367	.626 ^a

a. Measures of Sampling Adequacy(MSA)

(Source: Author's self-complied)

The KMO value in Anti Imaging Matrix should be either equal to 0.6 or greater than it. All the factors in Anti – Imaging (Correlation) Matrix will be taken into consideration as they stand upto the value mentioned.

Only two factors are of the doubtful nature which are:

- Degrading service quality
- Security helps in gaining trust.

Besides the doubtful nature they are taken into consideration because they justify the values of commonalities.

Communalities

Communalities

	Initial	Extraction
Degrading Service Quality	1.000	.892
Prompt Reception of Response	1.000	.718
Ability to Resolve my Problems	1.000	.580
Reliable Website Interface	1.000	.663
Ease of Understanding Clear Procedures	1.000	.498
Availability of Real Time Financial Information	1.000	.601
Security helps in Gaining Trust	1.000	.691
Feeling Secure in Sharing Information online	1.000	.674
Confidentiality of Data in E-banking services	1.000	.567

Extraction Method: Principal Component Analysis.

(Source: Author's self-complied)

The value to justify commonalities is 0.5. All the factors are considered. But the factor ease of understanding clear procedures is doubtful.

Total Variance Explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.400	26.667	26.667	2.400	26.667	26.667	1.771	19.673	19.673
2	1.326	14.731	41.397	1.326	14.731	41.397	1.698	18.869	38.541
3	1.145	12.717	54.115	1.145	12.717	54.115	1.344	14.932	53.474
4	1.015	11.273	65.388	1.015	11.273	65.388	1.072	11.914	65.388
5	.887	9.854	75.242						
6	.736	8.183	83.425						
7	.610	6.774	90.198						
8	.500	5.551	95.749						
9	.383	4.251	100.000						

Extraction Method: Principal Component Analysis.

(Source: Author's self-complied)

The TVE value is 65.38% which clearly explains the variance and states that the model is completely fit.

Rotated Component Matrix

Rotated Component Matrix^a

	Component			
	1	2	3	4
Degrading Service Quality	.068	-.048	.044	.940
Prompt Reception of Response	.248	.013	.786	-.194
Ability to Resolve my Problems	-.040	.714	.245	-.095
Reliable Website Interface	-.050	.081	.756	.286
Ease of Understanding Clear Procedures	.581	.270	.178	.238
Availability of Real Time Financial Information	.383	.666	.100	.041
Security helps in Gaining Trust	.057	.807	-.187	.026
Feeling Secure in Sharing Information online	.806	.106	.118	-.010
Confidentiality of Data in E-banking services	.751	-.027	-.041	-.026

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

(Source: Author's self-complied)

All the stated statements and factors in Rotated Component Matrix are correct and should be taken into consideration.

7. Findings and Conclusions

Customer is treated as the king of the market therefore considering the customers need is very important. The current study attempted to examine the contribution of various factors on consumer's level of satisfaction. The current study was exploratory in nature. A result of EFA test analysis indicates that, degrading service quality, prompt reception of response, ability to solve my problems, reliable website interface, ease of understanding clear procedures

,availability of real time financial information, feeling secure in sharing information, security helps in gaining trust, confidentiality of data in e banking services explains 65.38% of variance. Therefore, bankers and e banking service designers should consider all the factors to be of utmost importance and

should make probable changes in e banking services to increase the level of satisfaction for consumers and provide them with better experience.

All the variables like service quality. Reliability, security and privacy and customer satisfaction clearly under the study shows that level consumers level of satisfaction depends heavily on them. Therefore, there exists a positive relation between different variables.

After a lot of study and research put in we were able to find the gaps and limitations of past research work and provide probable solutions. Many customers showed dissatisfied behavior because their feedback on the services was never taken by the authorities so, in order to improve their satisfaction level, banks need to further do the study on measuring the level of customers satisfaction that how much the customers are happy with the services received and what are frequency and possibilities of reuse for e-banking services.

Some of them behaved surprise and responded that they were not even aware of many services being offered in order to increase the customer's base and increase banks need to organize customer awareness training programs for employees

Some responded that despite the rigorous efforts from the banks and institutions channels used to deliver the services are very far from the reach of customers, banks could use better channels of delivery like installing ATM in remote locations and improve their website interface which could really increase the satisfaction level and change consumer's behaviour towards the E-banking services offered.

While the survey and research it was observed that some consumer responds that they feel the E-banking services are not reliable enough which shifting their preferences towards the traditional physical service mode. To increase the reliability of services banks could provide real-time financial information and easy-to-understand procedures with clear instructions which would help the customers to solve their problems easily.

Many consumers responded that their perception and attitude towards the e- banking services are that they are not secure and safe to use, it doesn't provide the accurate amount of privacy needed to change the consumer's perception, and their behaviour towards e-banking banks could work on their security firewalls and work on the confidentiality of data provided by the customers.

No doubt, Indian banks are making sincere efforts for the adoption of advanced technology and installation of e delivery channels but still masses are vary of the concept. Banks are making sincere efforts to popularize the e-banking services and products. Younger generation is beginning to see the convenience and benefits of e banking. In years to come, e banking will not only be acceptable mode of banking will be preferred mode of banking.

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9. Appendix

Name *

Gender *

- Male
- Female
- Prefer not to say

Age *

- 15-25
- 25-35
- 35-45
- 45 & above

Q. Service quality factor while using E banking services *

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel degrading quality of the service impact customer satisfaction?					
I feel there is positive impact of prompt reception of response on customer satisfaction?					
i feel ability to guide to resolve my problem makes me feel more satisfied ?					
I feel degrading quality of the service impact customer satisfaction?					
I feel there is positive impact of prompt reception of response on customer satisfaction?					
i feel ability to guide to resolve my problem makes me feel more satisfied ?					

Q. Reliability factor While Using E banking services *

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel website Interface contributes majorly to the reliability factor ?					
I feel easy understanding and clear procedures make the online services more reliable ?					
I feel sufficient and real time financial information provided makes services more reliable and accurate ?					
I feel website Interface contributes majorly to the reliability factor ?					
I feel easy understanding and clear procedures make the online services more reliable ?					
I feel sufficient and real time financial information provided makes services more reliable and accurate ?					

Q. Security and privacy factor while using E banking services *

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel security plays important role in gaining trust of customer ?					
I feel secure while sharing my details for online transactions ?					
I feel my data remains confidential in modern methods than traditional methods ?					
I feel security plays important role in gaining trust of customer ?					
I feel secure while sharing my details for online transactions ?					
I feel my data remains confidential in modern methods than traditional methods ?					

Q. Do You feel satisfied with the current E banking you are getting? *

- Highly Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Highly Dissatisfied

Suggestions *