Innovations

Customer Satisfaction towards Technology-Enabled Banking- A Comparative Study of Selected PSB and PVB Banks in Coimbatore City

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Abstract: *India has a huge potential for digital payments with about 25.5 billion real-time payment transactions, India ranked first in the world in terms of the number of transactions. Based on this scenario it's essential to analyze the customer satisfaction towards technology based banking. For that systematic and convenience sampling were adopted to select the respondents from both private and public sector banks. The study found that the respondents of public sector banks were more satisfied than the private sector banks in relation to ATM services, core banking services and overall satisfaction level. Private sector bank customers were satisfied with the telebanking services and internet banking services. Overall, the public sector bank customers were more satisfied when compared to private bank customers.*

Key Words: 1.Customer satisfaction2.Technology based banking3.ATM 4.Mobile banking 5.Internet banking 6.Telebanking 7.Discriminant analysis

1 . Introduction

India has a huge potential for digital payments. As of October 2021, the country had around 1.18 billion mobile connections, 700 million Internet users, and about 600 million smartphones. These numbers are growing rapidly each quarter. With about 25.5 billion real-time payment transactions, India ranked first in the world in terms of the number of transactions in 2020..In order to transform India into a digitally empowered society and knowledge economy, the Government of India launched Digital India programme in 2015. The programme focuses on three main vision areas: digital infrastructure as a core utility to every citizen, governance and services on demand, and digital empowerment of citizens. Through the programme, the government wants to ensure the availability of high-speed Internet, provide mobile phones and bank accounts to every citizen, ensure availability of services in real-time from online and mobile platforms, make financial transactions electronic and cashless, and ensure digital literacy and availability of digital resources across the country.(https://www.ibef.org/research/case-study/digital-payments-and-their-impact-on-the-indian-economy)

E-banking is the automated delivery of new and existing products to customers. Through e-banking, both individual and corporate customers can perform a host of operations such as accessing accounts, transacting business, transferring funds, obtaining information, having funds debited and credited and others. Gone are the days of customers planning their days around limited bank timings and long queues. Banking now happens with a few clicks and is always available on devices such as phones and computers.

Within the period of one and a half decades, traditional banking has undergone a massive change, with the advent of technology and e-banking and the resultant customer satisfaction taking over the

banking sector, the world over. Banking customers are transitioning from apathy to satisfaction and enjoying multiple benefits as banks embrace technology on an ongoing basis.

This growth in the banking industry got an impetus because of the COVID pandemic. With people meeting or communicating very rarely, there was very little scope for them to interact with each other, or to exchange cash physically, in a transaction, at these times. This increased the use of e-banking because of the growth in digitized transactions and a cashless society.

Banking services, the world over, with the influx of technology went on to be transformed into being supply-driven demand driven, as it was traditionally. Now, a lot of customer-focused research goes into the products and services that banks bring out.

Globally, lifestyles have been changing enormously and with that the banking needs of consumers are also evolving. For banks to meet their goals of customer acquisition and retention, gauging customers' needs and launching products and services accordingly is the need of the hour.

There are several channels in the e-banking universe that are making this transformation possible. The ones which are most often used are online, phone and SMS banking, ATMs, debit and credit cards, electronic funds transfer and clearing, e-payments, digital wallets, trading accounts and other e-commerce solutions.

It is very important to remember that customer satisfaction is an indication that the existing customer base of a bank approves of and is satisfied with the banks' offerings and operations. That helps the transition from customer satisfaction to customer loyalty and helps brand building enormously. Some easily discernible results leading to customer satisfaction in an e-banking set up are increased productivity, reduction in cost of banking operations, fast settlement, and high volumes of banking transactions.

Some factors that could influence customer service were identified by the sector to be service quality, conversational banking, web design and content security, privacy, convenience, and speed. The digital transformation of banks has been complemented by the increase in the number of Internet users. The number of internet users in India is steadily increasing and is part of the story of why and how e-banking is flourishing. It is the same the world over.(https://www.infosysbpm.com/blogs/financial-services/the-impact-of-e-banking-on-customer-satisfaction.html)

Based on the scenario its essential to analyze the customer satisfaction towards technology based banking on selected respondents. The main objective of the study is to make a comparative study between selected Public Sector Banks (PSBs) and Private Sector Banks (PVBs) on customer satisfaction towards technology-enabled banking. The hypothesis tested was that the customer satisfaction does not differ on the basis of telebanking services, core banking services, ATM services, internet banking services, mobile banking services and overall satisfaction towards technology-enabled banking.

2. Literature review

Halim et.al.,(2023) in their study revealed that the student segment of banking institutions' customers in Malaysia build their satisfaction based on the reliability, security, and perceived usefulness. The equality plays a very important role, as it has become the basis for how customers view e-banking and, eventually, how it interacts and behaves with online services. The determinants of e-banking service quality associated with the banking industry is found to be essential hence, banks should take care of all three factor in regard to sustain an elevated level of customer satisfaction. This shows that customers are more attracted to banks that allow faster transactions via online portals, which are easily available. In addition, customers lay more stress in the effectiveness of the website security system as they are concerned with the privacy of their personal information and the safety of their financial transactions while using e-banking. Therefore,

banks should ensure that customer's personal information shared over e-banking platforms is not accessible to any third party. To enhance the security of the financial transactions, banks should provide secure and unique personal identification numbers and always send login and transaction alerts to registered contact numbers and e-mail addresses. Banks should also send onetime usable passwords to customers via registered phone/e-mail to complete each transaction, thus preventing suspicious transactions.

Serrah, E. A., and Maideen, M. B. H. (2022) in their study found that customer satisfaction has been always a concerning issue not only in the banking sector but in all the other industries. In this study, the factors that have been influencing customer satisfaction were security and privacy, reliability, system availability, and website design. The sample that the study conducted on is one of the private banks in Malaysia, the study only focused on the E-banking services quality not on all banking services in order to get more specific results.

The various studies relating to customer satisfaction on banking services covered various dimensions. Based on the literature reviewed and inference drawn by an in-depth study, it was found that the earlier studies had not concentrated on a comparison of customers' satisfaction of public sector and private sector banks on technology enabled banking services. This research gap made it essential to compare the banking services of public sector and private sector banks.

3. Methodology

The sample unit consists of target and control groups with 500 customers, out of which 250 are clients of public sector banks and 250 are clients of private sector banks. Those customers residing within the Coimbatore Municipal Corporation limits were selected. Systematic sampling technique and convenience sampling technique were adopted in the selection of sample units, covering all the 11 revenue divisions. Direct judgment method, a variant of quantitative judgment method was used to measure the customer satisfaction level. Using the limited category response method, the respondents were asked to mark their preference on a five point scale as fully satisfied, satisfied, neutral, dissatisfied and fully dissatisfied. The values assigned were 5,4,3,2 and 1 respectively. Primary data was collected in the month of January 2023Discriminant analysis was used to identify the customer satisfaction level, which discriminates the public sector and private sector bank respondents. Discriminant analysis was analyzed using the SPSS (Statistical Package for Social Sciences) 24

4. Findings

4.1 Demographic and Economic Profile of the Respondents

The percentage analysis shows that 74 percent of the respondents were males as against the 26 percent female respondents. The age wise distribution indicates that the majority of the samples considered are below 40 years. The occupation profile indicates that the majority were salaried class followed by the self-employed and home makers. Monthly income ranged from Rs.1,00,000 to Rs.1,50,000.

4.2 Customer Satisfaction towards Technology Enabled Banking

Technology enabled banking improves the service quality and strengthens the banking sector. Due to electronic payment there is an increase in customer satisfaction level, increased productivity, reduction in cost of banking operations, settlement faster etc. Customer satisfaction is a crucial factor for banks to retain or bring new customers to their respective bank. The following six factors identified for customer satisfaction are telebanking services, core banking services, ATM services, internet banking services, mobile banking

services and overall satisfaction. The type of bank i.e. the public sector bank (1) and the private sector bank (2) were considered as the dependent variable and the factors as independent variables. The table shows the significant effect on the group from each of the independent variables.

Table 1 Tests of Equality of Group Means

Variables	Wilks' Lambda	F	df1	df2	Sig.
Telebanking services	0.963	19.125	1	498	0.000
ATM services	0.960	20.547	1	498	0.000
Core banking services	0.898	56.612	1	498	0.000
Internet banking Services	0.990	4.833	1	498	0.028
Mobile banking services	1.000	0.142	1	498	0.707
Overall satisfaction	0.784	137.573	1	498	0.000

Source: Compiled by author

Table - 1 gives an insight about the "Test of Equality of Group Means". The significant value that is above 0.05 has been observed in only one variable i.e. "Mobile banking services". The perception of the respondents based on the type of bank significantly differ with regard to Telebanking Services, ATM services, core banking services, internet banking services and overall satisfaction. The value ofWilks Lambda close to 1 indicates that the differences are not significant.

The value of Box's M-test is 279.271 with F=14.466. The Box's M-test the assumption of equality of variance-covariance matrices in the group.The p-value for Box's M is less 0.05 showing that the assumption regarding the matrix cannot be made. The sample size for the current research is 500 i.e. a large sample and Box M is known to provide a statistically significant result when it does not exist (http://www.statisticshowto.com/boxs-m-test/).

The pooled within group correlation matrix provided the bivariate correlation values. It indicated that most of the correlation values are nearing 0.3.It is clear that except for the correlation value of 0.546 between "internet banking services and telebanking services" and the correlation value of 0.414 between "internet banking services and ATM services" all other correlation value are around 0.3 and the hence the problem of multicollinearity is eliminated in the study on customer satisfaction.Pooled Within - Group Matrices reveals that there is no problem of multicollinearity among independent variables. The summary of canonical discriminant functions shows the extent to which each of the independent variables is contributing to the ability to discriminate between the two groups.

Table 2:Standardized Canonical Discriminant Function Coefficients

Variables	Coefficients
Telebanking services	-0.445
ATM services	0.364
Core banking services	0.496
Internet banking services	-0.251
Overall satisfaction	0.675

Source: Compiled by author

The relative importance of the five independent variables in predicting the dependent variable (public and private sector bank respondents' perception) is given. The coefficient provides the discriminating ability of a variable. The coefficient value is large it suggest that the particular variable has a higher discriminating ability.

Overall satisfaction has a high discriminating ability on function 1 with a score of 0.675 followed by the core banking services (0.496) and ATM services (0.364). Further the negative standard coefficient value of -0.445 with regard totele banking services and negative value of -0.251 with regard to internet banking service indicate negative relation with the type of bank. Internet banking service has the negative relation (-0.251) which indicates that the technology enabled banking has to be improved.

The structure matrix table provides the discriminant loading. The SPSS output in general provides the value from the highest to the lowest by the absolute size of the loading (Hair et.al., 1995). In the customer satisfaction towards e-banking only one function is identified and the correlation of the function with the independent variable is displayed.

Table 3: Structure Matrix

Variables	Function
	1
Overall satisfaction	0.743
Core banking services	0.476
ATM services	0.287
Telebanking services	-0.277
Internet banking services	-0.139

Source: Compiled by author

Overall satisfaction with the loading of 0.743 strongly discriminates the perception of the private sector and the public sector bank respondents. The other important variable that discriminates the perception of the private and the public sector bank respondents is "core banking services" with a loading of 0.476. The negative loading of -0.277 with regard to telebanking services and a negative loading of -0.139 with respect to "internet banking services" indicates a negative relationship with the dependent variable.

Table 4 :Relative Discriminating Power of Variables

Factors	Unstandardized Discriminant Co-efficients	Relative Discriminant Power
Telebanking Services (X1)	-0.418	12.30996
ATM services (X2)	0.330	10.46596
Core banking services (X3)	0.374	23.61693
Internet Banking Services (X4)	-0.216	3.486387
Overall satisfaction (X5)	0.885	50.12106

Source: Compiled by author

The discriminant equation from the unstandardized discriminant co-efficient is

$Z = -3.261 - 0.418X_1 + 0.330X_2 + 0.374X_3 - 0.216X_4 + 0.885X_5$

Table – 4 indicates that the internet banking services has a least influence on the perception of public and private sector bank respondents when compared to other aspects.The relative discriminant power reveals that the overall satisfaction (50.12 percent) and core banking services (23.61 percent) were the dominant factors in discriminating the respondents of the public and private sector banks. Other variables like telebanking services (12.31), ATM services (10.46) and internet banking services (3.48) were less dominant factors in discriminating the respondents of the public and private sector banks.

5. Conclusion

Discriminant analysis was used to analyse the dominant factors in discriminating the respondents of the public and private sector banks. Overall satisfaction and core banking services were the dominant factors in discriminating the respondents of the public and private sector banks. Other variables like telebanking services, ATM services and internet banking services were less dominant factors. The respondents of public sector banks were more satisfied than the private sector banks in relation toATM services, core banking services and overall satisfaction level. Private sector bank customers were satisfied with the telebanking services and internet banking services. For mobile banking services the satisfaction level of both the public and private sector banks were the same.

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