



“Customer Perception Towards Mobile Banking Services of Nationalized Banks with special reference to Bengaluru urban customers”

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Abstract:

Mobile banking has emerged as a critical channel for delivering financial services, offering customers convenience, accessibility, and efficiency. This study explores customer perceptions of mobile banking services offered by banks, using primary data collected through survey. The research aims to understand how customers perceive the usability, security, reliability, and overall value of mobile banking services. The findings reveal that while customers appreciate the convenience of mobile banking, concerns about security and technical issues persist. The study concludes with recommendations for banks to address these concerns and improve customer perceptions.

Keywords: Customer Perception, Mobile Banking, Usability, Security, Satisfaction Level,

1. Introduction

The banking industry has changed due to the quick uptake of mobile banking services, which allow users to conduct financial transactions from any location at any time. However, how consumers view these services' security, dependability, and quality will determine how successful they are. This study examines how consumers view mobile banking services, paying particular attention to their expectations, worries, and experiences. The research provides banks with real-life insights to enhance their mobile banking services based on the analysis of primary data.

It is common for most people who are not connected with landlines and the internet to access electronic services using mobile banking. It is a new approach, promoting financial inclusion. It is all needed to achieve this by stabilizing technology, educating the customers, and managing “know your customer” carefully. Banking has been transformed by the new technology, which has developed in recent years, and the strong push for information technology. Worldwide, mobile banking has transformed the banking industry and is now targeted by many studies.

In reaction to government programs like Digital India and the drive towards a cashless economy, the Indian banking industry especially nationalized banks has embraced this technological change. The adoption and sustained use of mobile banking platforms are significantly influenced by customer perception. While negative experiences, particularly those involving security breaches, subpar app performance, or insufficient support, can discourage usage and harm brand reputation, positive perceptions can increase trust, satisfaction, and

loyalty. Therefore, banks looking to enhance user experience and keep tech-savvy customers must comprehend the elements that affect customer attitude.

This research targets specifically urban consumers in Bengaluru, a highly tech-savvy city in India and a centre for IT professionals, youth entrepreneurs, and digitally educated people. Bengaluru offers a distinctive backdrop because of the depth of smartphone penetration, strong internet infrastructure, and a population familiar with digital services across domains. Still, even in such a modern setup, there are still quite a number of users who share fears regarding the usability and security of mobile banking apps provided by nationalized banks.

Through this study, we aim to uncover key insights into how customers evaluate mobile banking services, what challenges they face during usage, and what improvements they expect from banks. The findings will prove valuable recommendations for nationalized banks to enhance their mobile banking platforms, address user concerns, and foster long-term customer engagement in an increasingly competitive digital banking landscape.

Banks can turn mobile banking from a functional requirement into a dependable and favoured banking method by matching technological capabilities with user expectations. thereby supporting India's larger objectives of digital empowerment and financial inclusion.

Research Objectives:

1. To evaluate customer perceptions of the usability of mobile banking services.
2. To assess customer concerns regarding the security of mobile banking.
3. To recognize factors influencing customer trust with mobile banking services.
4. To find the satisfaction level of the customers
5. To provide suggestions for refining customer perceptions of mobile banking services.

Review of Literature

(Dr. Geetha M Rajaram, April 2017), the objective of this paper is to review the services of mobile banking provided by commercial banks, to study the impact of various demographic features on the usage of mobile banking channel. This study was conducted to know whether the mobile banking technology is accepted by the vast spread customers. Its main aim towards the growth and development of financial services would lead towards a cashless economy.

(MATHAPATI, June 2022), this study revealed that majority of the customers in Bengaluru region are aware of mobile banking services extended by various banks. As well Awareness programmes on the use of mobile banking for cheque transactions, savings, and credit management may be carried out by the service providers.

(Sarvamangala, 2023), This study revealed that the Indian banking system is a confluence of both public and private banking companies which have contributed to the development of the country and its citizen. This can be further improved and maintained by bringing in new technologies like artificial intelligence, branchless banking, neo banking etc. Further banks also need to create awareness about safe banking practices among customers so that they can conduct their banking activities without fear.

(Diwan & Kumar Adwani, 2021), This study revealed that the satisfaction level of the customer is strongly linked to convenience as a predictor of E- Banking Services

(Sanuja Shree PN, December 2019), carried a study to examine the bank customers with respect to internet banking and e-banking sectors among Chennai customers. The result indicated that banks should provide necessary facilities and monetary benefits to online bank customers who prefer to use digital platforms in their daily life.

(Prasad, n.d.), this study revealed that the customers need to be trained on how to utilize every new technology as well the capacity of the bank to convince them to convert to online banking determine the success of online banking.

(Singh & Sinha, 2016), This study revealed that customers age and occupation have an impact on the use of mobile banking services and their perception of mobile banking services.

(Ml & Ramaprabha D, 2017), This research was conducted through primary data and study revealed that there is no significant growth in banking access. Government vision of digital India and smart cities can be realized only by enabling digital infrastructure.

(Abuhasan & Moreb, 2021), This study discloses that digital transformation is important for banks also as it reduced administrative and operational cost and improves the bank's performance and the ability to handle a higher volume of banking operations and finally, it plays a major role in increasing the competitive value of a bank and attracting more customer, and through which it increases the market share.

(Anitha & Senthil Kumar, 2017), This study revealed that many of the users use mobile banking services weekly as well the users are not so much habitual of m-banking.

(Kothapalli, 2022) this study explored the significant prospects for improving corporate processes and enriching customer experiences. Customer satisfaction has grown via targeted and coherent interactions and seamless channel integration.

(Alonge et al., 2025), This study revealed that technological advancements offer vast potential, it is equally important for banks to maintain a strong focus on the customer experience including security, trust, and ease of using mobile banking apps or services. By aligning digital transformation efforts with customer needs and strategic business objectives, the banks can position themselves for sustained success in an increasingly digital world.

Statement of the problem:

The Internet is revolutionizing the way financial services are developed and provided to customers. The whole financial landscape has transformed since the introduction of E-Banking. Innovative developments such as Internet banking have supplanted traditional service delivery routes, saving clients time, energy and work paper. This study is an attempt to bring out the customers' perceptions of online banking services provided by Nationalized banks, in the line with customer satisfaction, by taking into account the importance of information technology and computer networking, their pivotal role in the banking sector, and customers preference for online banking services offered by the bank.

Research Methodology

The current research employs a descriptive and exploratory research design to understand individuals' usage patterns, perceptions, and experiences of people using mobile banking services. Sampling unit consisted of people who possess a bank account and regularly use mobile banking applications for carrying out transactions. 388 respondents responded to the questionnaire. To have proportional representation from different sectors of banks, the same number of participants were drawn from public sector and private sector bank account owners. Structured questionnaire was employed as the means of data collection that included continuous and categorical variables. The questionnaire contained three different sections where in first section comprises respondents demographic data. Second section focused on the measurement of the usage behaviour and level of awareness of mobile banking services and the third section investigated the user's perception regarding security matters and the trust levels towards mobile banking websites. The survey targeted respondents from Bangalore Urban, representing a sample of participants from various ages and professional backgrounds. The questionnaire survey consisted of 16 questions, and all of them were related to usability, security, trust and satisfaction problems of mobile banking customers.

Summary of Findings

Data Analysis and Findings

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
GENDER	388		2.0	1.590	.5079
AGE	388	1.0	4.0	1.923	.8562
Education_Qualification	388	2.0	7.0	4.773	.8384
Occupation	388	1.0	7.0	1.786	.8555
Awareness on Mobile Banking Services	388	1.0	2.0	1.026	.1587
Use of Mobile Banking Services	388	1.0	6.0	1.995	1.3314
Ease of use of bank's mobile app	388	1.0	4.0	1.570	.7064
Security issues while using mobile banking app	388	1.0	2.0	1.840	.3669
Reability of mobile banking apps in (terms of Performance)	388	1.0	4.0	1.946	.7469
Satisfaction level for the features offered by Mobile Banking app	388	1.0	4.0	1.899	.7244
trust of bank's mobile app to handle the financial transactions securely	388	1.0	5.0	1.376	.5864
Valid N (listwise)	388				

GENDER * Awareness on Mobile Banking Services * Reability of mobile banking apps in (terms of Performance) Crosstabulation

Count

			Awareness on Mobile Banking Services		Total
			1.0	2.0	
Reability of mobile banking apps in (terms of Performance)			1.0	2.0	Total
1.0	GENDER	1.0	34	3	37
		2.0	75	0	75
	Total		109	3	112
2.0	GENDER	.0	3	0	3
		1.0	64	4	68
		2.0	121	0	121
	Total		188	4	192
3.0	GENDER	1.0	38	3	41
		2.0	36	0	36
	Total		74	3	77
4.0	GENDER	1.0	7		7
	Total		7		7

Total	GENDER	.0	3	0	3
		1.0	143	10	153
		2.0	232	0	232
Total			378	10	388

GENDER * Reability of mobile banking apps in (terms of Performance) Crosstabulation

Count

		Reability of mobile banking apps in (terms of Performance)				Total
		1.0	2.0	3.0	4.0	
GENDER	.0	0	3	0	0	3
	1.0	37	68	41	7	153
	2.0	75	121	36	0	232
Total		112	192	77	7	388

Mobile banking apps are generally perceived as highly reliable, especially by female users and Male users are more likely to experience or perceive issues with performance. This data suggests a gender-based difference in user experience or expectations from mobile banking apps.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.921 ^a	6	.001
Likelihood Ratio	26.164	6	.000
Linear-by-Linear Association	12.711	1	.000
N of Valid Cases	388		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .05.

The chi-square test results show a statistically significant association between gender and perceived reliability of mobile banking apps ($\chi^2 = 22.921, p = 0.001$). This indicates that gender influences how users rate the reliability of these apps. Females tend to rate the apps as more reliable, while males include all the "unreliable" ratings. Although some cells had low expected counts, the overall findings suggest a meaningful difference in perception between male and female users.

Awareness on Mobile Banking Services * Reability of mobile banking apps in (terms of Performance) Crosstabulation

Count

		Reability of mobile banking apps in (terms of Performance)				Total
		1.0	2.0	3.0	4.0	
Awareness on Mobile Banking Services	1.0	109	188	74	7	378
	2.0	3	4	3	0	10
Total		112	192	77	7	388

The crosstabulation between Awareness on Mobile Banking Services and Reliability of Mobile Banking Apps shows that the majority of users especially those who are aware of mobile banking services perceive the apps

as reliable. Out of 378 aware users, 109 rated the apps as very reliable, 188 as reliable, 74 as neutral, and only 7 as unreliable. In contrast, among the 10 users who were not aware, most gave neutral or average reliability ratings, with none rating the apps as unreliable. This suggests that awareness is strongly linked to more positive perceptions of app performance.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.910 ^a	3	.823
Likelihood Ratio	1.032	3	.794
Linear-by-Linear Association	.054	1	.816
N of Valid Cases	388		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .18.

The chi-square test results show that there is no statistically significant association between awareness of mobile banking services and the perceived reliability of mobile banking apps ($\chi^2 = 0.910$, $p = 0.823$). Although some cells had low expected counts, the p-value indicates that the observed differences in reliability ratings between aware and unaware users are likely due to chance. This suggests that awareness of mobile banking does not strongly influence how users perceive app reliability.

Category	Finding	Details / Statistics
Demographics	Gender	Majority of respondents were male
	Age Group	Most users aged between 25–44 years
	Education	Majority had Higher Secondary or above
	Occupation	Working professionals dominated usage
Awareness & Usage	Awareness	Almost all respondents are aware of mobile banking
	Frequency	High usage (daily/weekly) for basic features
	Purpose	Fund transfer, bill payment, balance check
	Advanced Features	Underutilized (e.g., loan applications, investment services)
User Experience	Usability	Many found apps difficult to use
	Security	Low perceived security; many faced phishing/fraud issues
	Reliability	Apps often crashed or responded slowly
	Customer Support	Poor ratings for responsiveness and effectiveness
Satisfaction & Trust	Satisfaction	Overall satisfaction levels were moderate to low
	Trust	Low trust in app security and financial safety
	Willingness to Recommend	Moderate to low willingness to recommend services
General Perception	Benefits Recognized	24/7 access, instant transactions, convenience
	Challenges Faced	Security concerns, poor UI/UX, unreliable performance

Demographics: The majority of the responders were male and the highest age group was 25-44 years. Higher secondary or above education was completed by the majority of the respondents. Working professional was the largest proportion of users.

Awareness and usage: Almost all respondents were aware of mobile banking services. Most used mobile banking frequently, primarily for fund transfers, bill payments, and balance checks. Advanced features like loan applications and investment service were underutilized.

User Experience: Many users reported finding the apps difficult to use. Perceived security levels were low, with many respondents having experienced security problems. Reliability of the apps was in doubt with regular crashes and slow speeds. Customer support was also given a poor rating for responsiveness and effectiveness.

Satisfaction and Trust: Satisfaction with the app features and with general mobile banking services was generally negative. Trust in the security of mobile apps' ability to pass on financial transactions securely was low and willingness to recommend mobile banking services to others was moderate to low.

General Perception: Many users mentioned that the benefits of using mobile banking apps include convenience, 24/7 accessibility, and the ability to perform transactions instantly. However, they also reported facing challenges such as concerns about security, issues with poor user interface/user experience (UI/UX), and inconsistent app performance.

Summary

The survey was conducted to know the attitude of urban customers in Bengaluru towards mobile banking services provided by nationalized banks. The survey was answered by 389 respondents representing varied categories including gender, age groups, educational qualifications, and occupation.

Most of the participants were male and of working age groups, which meant that mobile banking is used more frequently by working and professional persons. The majority of the participants had attained at least high secondary education, which emphasized literacy in digital banking uptake.

It was found that majority of the respondents are aware of the mobile banking services. Patterns of usage reflected that users make frequent use of the services, mainly for simple banking operations like money transfer, balance checking, and bill payment. Advanced facilities such as loan request and investment facilities were infrequently accessed. While most of the respondents had been using mobile banking services for more than a year, levels of satisfaction on ease of use, security, reliability, and general service quality were variable or negative. Security issues were found to be dominant among the users, with the vast majority of them experiencing problems related to app functionality and customer responsiveness.

Despite recognizing benefits such as instant transactions and 24/7 accessibility, overall satisfaction and trust in mobile banking apps remained low, affecting willingness to recommend these services to others.

Conclusion:

The research discovers that although awareness and usage of mobile banking services by urban consumers in Bengaluru are significant, there is a gap between what users expect and how services actually get delivered. Users value convenience and accessibility of mobile banking but encounter usability, security, performance, and support issues.

The nationalized banks must concentrate on enhancing the performance and design of their mobile applications, maintaining strong security features, increasing system performance, and offering effective customer support to gain trust and enhance satisfaction.

In order to promote adoption and retention of customers, banks need to educate its customers about sophisticated features and make digital banking platforms user-friendly and reliable according to contemporary standards. Resolving these problems can greatly contribute to improving customer experience and fostering increased dependence on mobile banking services in the long run.

Future scope for research

The horizon for this research can be extended in a number of significant directions. Since the present study is concentrated on customer attitude towards mobile banking facilities of nationalized banks in Bengaluru urban, one such direction to explore would be to increase the geographical extent to other urban and rural areas of Karnataka. Through this, it would be possible to make a comparative study of users' attitudes based on regional variations, levels of digital literacy, and support infrastructure.

Additionally, though the study identifies pivotal concerns including security, simplicity, dependability, and customer support, future studies may explore more deeply behavioural factors affecting trust and acceptance of mobile banking products. This may encompass psychological and socio-economic influences on user confidence, particularly among the ageing or less technologically adept population.

Another promising avenue is to carry out longitudinal surveys tracing changes in customer sentiment over time, particularly against the backdrop of technological advancements, policy measures, or publicity campaigns by nationalized banks. In light of accelerating advances in digital banking technology in the form of AI interfaces, and real-time customer support, it would also be worthwhile to evaluate how these developments impact customer satisfaction and interest.

In addition, comparative analysis between nationalized and private banks may reveal areas of performance gaps and competitive strengths in the digital banking market. Finally, the use of qualitative data through interviews or focus group discussions may add depth to understanding user experiences that may not be available from quantitative survey responses.

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