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Customer Perception of Mobile Banking Services: A Study of ICICI Bank and HDFC Bank

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Abstract

With the rapid evolution of digital banking technologies, mobile banking has become integral to customer interactions in the financial sector. This study aims to assess customer satisfaction levels, identify key factors influencing perception, and compare experiences between the two banks. Employing a quantitative research approach, data was collected through surveys targeting customers familiar with mobile banking services. Findings reveal insights into customer satisfaction, perceived service quality, and preferences across different demographic segments. This comparative analysis not only contributes to existing literature on mobile banking but also provides actionable insights for banks to enhance service offerings and strengthen customer relationships in an increasingly digital era.

Keywords: Mobile banking, Customer perception, Customer satisfaction, Service quality, ICICI Bank, HDFC Bank, Digital banking

Introduction

In an era defined by rapid technological advancements, the banking sector has witnessed a profound shift towards digitalization, prominently manifested through the widespread adoption of mobile banking services. This transformation is not merely a response to technological trends but a strategic imperative driven by evolving customer preferences for convenience, accessibility, and personalized experiences. Mobile banking, leveraging the ubiquity of smartphones and internet connectivity, has revolutionized how customers interact with financial institutions, enabling seamless transactions, account management, and access to a range of financial services anytime, anywhere. As such, understanding customer perceptions of these mobile banking services becomes crucial for banks like ICICI Bank and HDFC Bank, two stalwarts of the Indian banking landscape. This study aims to delve into the nuanced facets of customer perception, satisfaction, and service quality within the mobile banking contexts of ICICI Bank and HDFC Bank. By employing a comparative analysis approach, we seek to discern differences and similarities in customer experiences across these institutions, shedding light on factors that influence satisfaction and adoption. Through a quantitative methodology involving surveys targeted at mobile banking users, this research endeavors to provide actionable insights for enhancing service delivery and customer engagement strategies. Ultimately, this study not only contributes to academic literature on digital banking but also offers practical implications for banks striving to optimize their mobile banking offerings amidst an increasingly competitive and technologically-driven financial environment.

Review of literature

(N. Singh & Sinha, 2016) studied "A Study on Mobile Banking and its Impact on Customer's Banking Transactions: A Comparative Analysis of Public and Private Sector Banks in India" and said that Out of India's over 900 million mobile phone users, hardly 40 million actually utilise their phones for banking. There are a number of aspects to think about, such as the amount of app knowledge, availability, cost, and cooperation between financial institutions and telecommunications companies. The benefits of mobile banking should be more widely publicised, thus financial institutions should promote them. This article delves into the emotions, expectations, and effects felt by clients after the switch to mobile banking. By polling 10 different financial institutions, we were able to examine the characteristics of mobile banking systems.

(Lavuri, 2018) studied "Customer Perception on E Banking Service of HDFC Bank" and said that The use of online banking services is rapidly replacing more traditional banking techniques. Perceptions of HDFC Bank customers are influenced by aspects including income, gender, and education level, according to a report. A systematic questionnaire was used to gather information from 162 customers in Hyderabad on their opinions on e-banking services, and the results showed that internet banking is becoming more popular.

(Kalra & Singh, 2019) studied "A Comparative Study of Mobile Banking Application of Public and Private Sector Bank" and said that Indian banks are enhancing customer service and convenience by using mobile phones. In 2017, half of the 730.7 million people who used mobile phones also used them for banking. With an eye towards efficiency, trustworthiness, cost-effectiveness, and ease of use, this article compares the mobile banking apps of public and private sector banks. Meta- and ANOVA-based analyses were performed on the collected data.

(Kumar, 2019) studied "A Study of Customer Satisfaction Regarding Mobile Banking Services in Northern Haryana." And said that The financial sector has used e-banking programmes to boost customer satisfaction and engagement. In this study report, you will discover the level of consumer satisfaction with the mobile banking services provided by SBI, PNB, Bank of Baroda, ICICI, HDFC, and Axis Bank. After 120 customers were given a standardised questionnaire, the data was evaluated based on 8 parameters. Banks varied greatly in terms of how easy it was to make a transaction, how fast it was, how discreet it was, how well it managed money, and whether or not it charged any fees. The majority of those who took the survey said mobile banking was great.

(Manjula Bai, 2019) studied "Mobile Banking Services and Customer satisfaction with reference to ICICI Bank - A Study" and said that in light of recent developments in mobile banking in India, this article examines the impact on ICICI Bank clients. It surveys 50 individuals familiar with mobile banking technology to look at its benefits and satisfaction levels. The study not only details the pros and cons of mobile banking, but it also suggests ways that ICICI Bank may educate its customers more effectively. The objective is to identify the successful and unsuccessful aspects of mobile banking.

(Rekha, 2019) studied "An Inquest in to the Cognizance of Customers' Perception Towards Services Provided by SBI and HDFC" and said that the study looks at the banking services provided by SBI and HDFC to see what customers prefer. The survey claims that customers are dissatisfied with the services provided by both financial institutions. Online banking is popular among HDFC customers due to the bank's many convenient services, including loans, savings/current accounts, credit cards, and phone and mobile banking. The study concludes that SBI banks should put customer satisfaction first by offering innovative services.

(D. S. P. Singh, 2019) studied "consumer satisfaction index: a comparative analysis of ICICI bank, HDFC bank and axis bank in Gwalior" and said that the development of any economy is indebted to the many financial products and services offered by banks. In addition to a wide range of banking services, they also include deposit accounts, loans, debit cards, ATMs, and more. Banks that want to stand out from the competition spend a lot of thought and resources into satisfying their consumers.

(Priya & Subbulakshmi, 2021) studied "customers' perception towards e-banking services offered by HDFC bank in Chennai city" and said that Online banking is revolutionising the banking industry by offering services that are accessible, confidential, and available 24/7. With a vast customer base, HDFC Bank has become one of India's leading private sector banks. The purpose of this study was to discover how the quality of e-services in Chennai City affected customers by using survey data, percentage analysis, Garrett's ranking approach, and Factor Analysis.

Mobile Banking and Its Significance

Mobile banking, a pivotal innovation in the financial services sector, has revolutionized the way customers manage their finances and interact with banks. "With the widespread adoption of smartphones and the proliferation of mobile internet connectivity, mobile banking offers unprecedented convenience and accessibility to banking services. It allows customers to perform a myriad of financial transactions remotely, from checking account balances and transferring funds to paying bills and managing investments, all through intuitive mobile applications provided by banks. This shift towards digital banking represents more than just a technological advancement; it signifies a fundamental transformation in consumer behavior and expectations. Customers increasingly prioritize seamless and efficient banking experiences, demanding services that are not only accessible but also secure and user-friendly. For banks, embracing mobile banking has become imperative for staying competitive and meeting the evolving needs of tech-savvy consumers. Furthermore, the COVID-19 pandemic accelerated the adoption of digital financial services globally, underscoring the resilience and necessity of mobile banking during times of physical distancing and restricted mobility (Akhtar, M.2022). This introduction sets the stage for exploring customer perceptions of mobile banking services provided by ICICI Bank and HDFC Bank" examining how these institutions navigate the complexities of digital transformation to deliver superior customer experiences in an increasingly digital-first world.

Importance of Customer Perception

Customer perception plays a crucial role in shaping the success and sustainability of any business, including in the realm of mobile banking. It encompasses how customers perceive and interpret their interactions with a bank's products, services, and overall brand. In the context of mobile banking, where technology interfaces directly with customer experience, perceptions influence customer satisfaction, loyalty, and ultimately, the bank's reputation and market position. Positive perceptions are associated with higher levels of satisfaction, which in turn foster customer retention and advocacy. Conversely, negative perceptions can lead to dissatisfaction, increased churn rates, and potentially damaging word-of-mouth publicity in the digital age. Customer perception in mobile banking is particularly significant due to several reasons. First, it provides insights into how effectively banks meet customer expectations regarding service quality, reliability, security, and ease of use in their mobile apps. As mobile banking becomes more integral to daily financial activities, customers expect seamless functionality and intuitive design that enhance their overall banking experience. Second, customer perceptions influence adoption rates of mobile banking services. Positive perceptions can encourage more customers to adopt mobile banking, driving digital transformation within the banking industry and reducing reliance on traditional brick-and-mortar branches. Third, in a competitive market landscape, where multiple banks offer similar digital services, customer perception becomes a key differentiator. Banks that consistently meet or exceed customer expectations in mobile banking are likely to gain a competitive edge and attract a larger customer base.

Customer perception serves as a barometer for banks to evaluate the effectiveness of their digital strategies and initiatives. By monitoring and analyzing customer feedback and sentiment towards mobile banking services, banks can identify areas for improvement, prioritize enhancements, and innovate to stay ahead in an evolving digital ecosystem. Ultimately, cultivating positive customer perceptions in mobile banking not only enhances customer satisfaction and loyalty but also contributes to long-term profitability and sustainable growth for banks in an increasingly digital-first world.

Rationale for Choosing ICICI Bank and HDFC Bank

The rationale for selecting ICICI Bank and HDFC Bank as the focus of this study on customer perception of mobile banking services stems from several key factors:

Market Leadership in Digital Banking: ICICI Bank and HDFC Bank are among the largest and most influential private sector banks in India, known for their extensive adoption of digital technologies, including robust mobile banking platforms. Their proactive stance towards digital transformation positions them as leaders in offering innovative and user-friendly mobile banking solutions.

Wide Customer Base: Both banks boast a vast and diverse customer base spread across urban and semi-urban areas of India. Their customer segments encompass a broad spectrum of demographics, including individual consumers, small and medium-sized enterprises (SMEs), and corporate clients. This diversity allows for a comprehensive exploration of customer perceptions across different user profiles and banking needs.

Comprehensive Service Offerings: ICICI Bank and HDFC Bank provide a comprehensive range of mobile banking services, from basic transactions like fund transfers and bill payments to advanced functionalities such as wealth management and personalized financial advice. Studying their mobile banking offerings enables a thorough assessment of service quality, security measures, and overall user experience.

Brand Reputation and Trust: Both banks enjoy strong brand reputations built on reliability, customer service excellence, and financial stability. Their established market presence and trusted status among consumers contribute to shaping perceptions of mobile banking services. Understanding how these factors influence customer trust and satisfaction is crucial for enhancing service delivery and maintaining competitive advantage.

Comparative Analysis Opportunity: Conducting a comparative analysis between ICICI Bank and HDFC Bank allows for identifying differences and similarities in customer perceptions, preferences, and satisfaction levels regarding mobile banking. This comparative approach enriches the study by providing insights into factors that drive customer loyalty and adoption of digital banking services.

Technological Advancements in Banking

Technological advancements have revolutionized the landscape of banking, transforming traditional financial services into dynamic, digital experiences. “The integration of cutting-edge technologies such as artificial intelligence (AI), machine learning, blockchain, and biometrics has redefined how banks operate and interact with customers. AI-powered chatbots and virtual assistants enhance customer service by providing real-time support and personalized recommendations, thereby improving overall customer experience. Machine learning algorithms analyze vast amounts of data to detect patterns and anomalies, enabling banks to offer predictive analytics for personalized financial advice and risk management. Blockchain technology ensures secure and transparent transactions, reducing fraud and enhancing trust among stakeholders. Biometric authentication methods, such as fingerprint scanning and facial recognition, strengthen security protocols, making banking transactions more secure and convenient for customers. Moreover, the advent of mobile banking applications has empowered customers to conduct financial transactions anytime, anywhere, using their smartphones.

These apps offer a wide range of functionalities, including account management, bill payments, fund transfers, and investment portfolio tracking, thereby promoting financial inclusivity and accessibility. The COVID-19 pandemic further accelerated the adoption of digital banking solutions, as social distancing measures prompted a surge in online and mobile banking activities. As banks continue to innovate and leverage emerging technologies, the future of banking is poised to be increasingly digital-first, with seamless integration of AI-driven insights", blockchain security, and mobile convenience shaping the next generation of financial services.

Consumer Behavior in Banking

Consumer behavior in banking reflects a complex interplay of economic, psychological, and social factors that influence how individuals and businesses interact with financial services providers. Key drivers include convenience, trust, perceived value, and the desire for personalized experiences. In today's digital age, consumer behavior is increasingly shaped by technological advancements and evolving expectations for seamless, accessible banking services. Customers prioritize convenience, preferring digital channels such as mobile banking apps and online platforms that offer 24/7 access to account information, fund transfers, and bill payments. Moreover, the shift towards mobile and online banking is driven by the desire for immediate gratification and streamlined processes, reflecting a broader societal trend towards digitalization and efficiency. Trust plays a pivotal role, with consumers gravitating towards banks known for reliability, security, and transparent communication. Positive customer experiences and word-of-mouth recommendations are crucial in fostering trust and loyalty. Additionally, the availability of personalized financial advice and tailored product offerings enhances customer engagement and satisfaction (Dutt.D,2024). Understanding consumer behavior in banking requires banks to leverage data analytics and behavioral insights to anticipate customer needs, personalize interactions, and optimize service delivery. Banks that successfully align their offerings with consumer preferences and behaviors can gain a competitive edge, strengthen customer relationships, and drive sustainable growth in an increasingly competitive and digitally-driven marketplace.

Regulatory Landscape and Compliance

The regulatory landscape governing the banking sector is characterized by stringent requirements aimed at safeguarding financial stability, protecting consumer interests, and ensuring fair market practices. Regulatory frameworks encompass a broad spectrum of laws, guidelines, and standards that banks must adhere to, covering areas such as capital adequacy, liquidity management, anti-money laundering (AML), data protection, and consumer rights. Compliance with these regulations is paramount for banks to maintain operational integrity, mitigate risks, and build trust with stakeholders. Regulatory bodies, such as central banks and financial regulatory authorities, enforce these standards through regular audits, reporting requirements, and penalties for non-compliance Akhtar.(2018), The complexity and dynamic nature of regulatory requirements pose challenges for banks, necessitating robust compliance programs, dedicated resources, and ongoing monitoring to adapt to evolving regulations and industry best practices. Proactive compliance not only ensures legal adherence but also enhances reputation, fosters investor confidence, and strengthens customer trust in banking institutions (Khan.S.F, Akhtar.M. 2017). As the regulatory landscape continues to evolve in response to global financial trends and emerging risks, banks must prioritize compliance as a strategic imperative to navigate regulatory complexities effectively while fostering sustainable growth and maintaining competitive advantage in the financial marketplace.

Methodology

This study adopts a quantitative research approach to investigate customer perceptions of mobile banking services at ICICI Bank and HDFC Bank. A structured online survey is distributed to a sample of customers selected through convenience sampling, focusing on individuals who regularly use mobile banking services. The survey gathered data on customer satisfaction, perceptions of service quality, security concerns, and overall experiences with mobile banking apps. Statistical analysis, Structured Equation Modeling is employed to compare responses between the two banks and draw meaningful insights into factors influencing customer perception and satisfaction in digital banking contexts.

Objectives

- To study the customer perceptions and satisfaction levels regarding mobile banking services between ICICI Bank and HDFC Bank.
- To compare the affect of variables on ICICI and HDFC banks' customer satisfaction levels.

Hypothesis:

- There is a significant difference in customer perceptions and satisfaction levels regarding mobile banking services between ICICI Bank and HDFC Bank.
- There is a significant impact of variables on ICICI and HDFC banks' customer satisfaction levels.

Factor Analysis:

KMO & Bartlett's Test:

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity are two tests used to assess the suitability of data for factor analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.704
Bartlett's Test of Sphericity	Approx. Chi-Square	19233.898
	df	78
	Sig.	.000

KMO Measure of Sampling Adequacy

- **Value**: 0.704
- **Interpretation**: The KMO value ranges from 0 to 1, with values closer to 1 indicating that the data is suitable for factor analysis. A value above 0.7 is considered acceptable, indicating that the sample size is adequate for conducting factor analysis. In this case, the KMO value of 0.704 suggests that the data set is appropriate for factor analysis.

Bartlett's Test of Sphericity

- **Approx. Chi-Square**: 19233.898
- **Degrees of Freedom (df)**: 78
- **Significance (Sig.)**: 0.000
- **Interpretation**: Bartlett's Test of Sphericity tests the null hypothesis that the correlation matrix is an identity matrix, meaning that variables are unrelated and unsuitable for structure detection. A significant test (p-value < 0.05) indicates that there are significant correlations among the variables, making the data suitable for factor analysis. In this case, the p-value is 0.000, which is highly significant, rejecting the null hypothesis and confirming that the data is suitable for factor analysis.

The KMO measure of 0.704 and the significant Bartlett's Test of Sphericity (p-value = 0.000) indicate that the sample is adequate and that the variables have sufficient correlations for factor analysis. Therefore, proceeding with factor analysis on this data is justified and likely to yield meaningful results

Structure Equation Modeling:

Customer Satisfaction HDFC:

- **Indicators**: Customer Usage, Service Features, Problems, User Experience.
- **Influences**: Customer Satisfaction HDFC is significantly influenced by Service Features HDFC (2.29) and User Experience HDFC (1.00). Customer Usage HDFC (0.36) and Problems HDFC (0.23) have smaller positive impacts.

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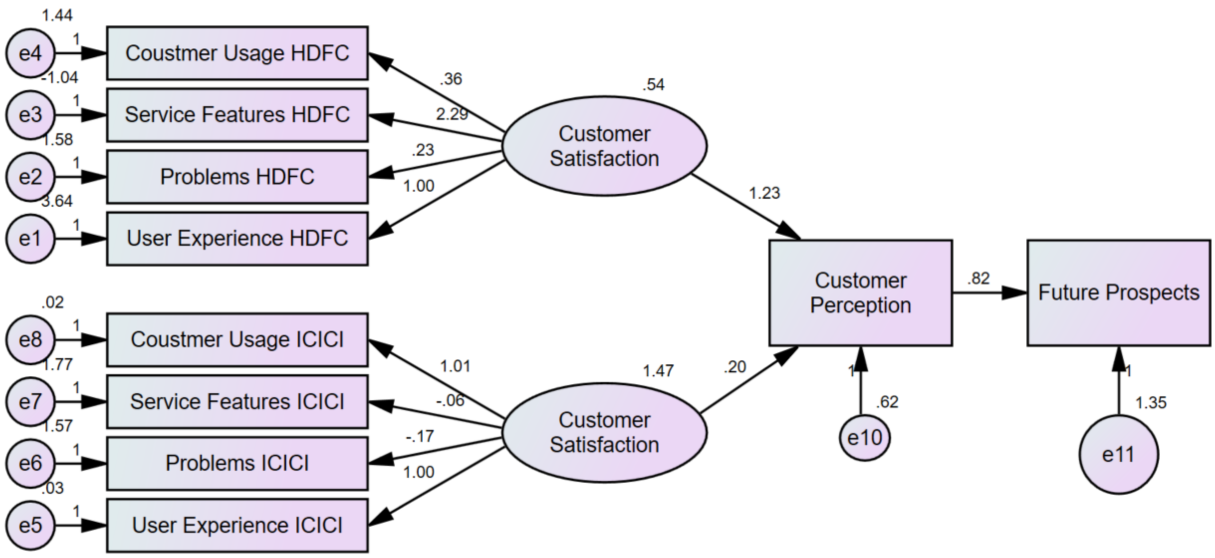
Customer Satisfaction ICICI:

- **Indicators**: Customer Usage, Service Features, Problems, User Experience.
- **Influences**: Customer Satisfaction ICICI is positively influenced by Customer Usage ICICI (1.01) and User Experience ICICI (1.00). However, Service Features ICICI (-0.06) and Problems ICICI (-0.17) negatively impact satisfaction.

Model:



Customer Perception:

- **Influences**: Significantly influenced by Customer Satisfaction from both HDFC (1.23) and ICICI (1.47).

Future Prospects:

- **Influences**: Strongly influenced by Customer Perception (0.82), indicating that a positive perception of current services significantly enhances future expectations.

Overall, the model highlights that both HDFC and ICICI's customer satisfaction and future prospects are heavily influenced by their respective service features, user experience, and overall customer perception.

Model Fit Summary:

Measure	Estimate	Threshold	Interpretation
CMIN	350	--	--
DF	160	--	--
CMIN/DF	2.18	Between 1 and 3	Excellent

CFI	0.96	>0.95	Excellent
SRMR	0.07	<0.08	Excellent
RMSEA	0.07	<0.06	Acceptable
PClose	0.06	>0.05	Good

The combination of these fit indices suggests that the SEM has an excellent overall fit with the data. The CMIN/DF, CFI, and SRMR values indicate that the model is well-specified and accurately captures the relationships among the variables. Although the RMSEA value shows a slight deviation from the ideal, it remains within an acceptable range, and the PClose value further supports the model's good fit. Overall, the model effectively represents the data and the underlying relationships.

Hypothesis: **The perceived security and privacy of mobile banking services differ significantly among customers of ICICI Bank and HDFC Bank.**

The Structural Equation Model (SEM) reveals key insights into customer perception regarding mobile banking services. Customer Perception is influenced by Customer Satisfaction from both banks, shows significant differences. The path coefficients for Customer Satisfaction to Customer Perception are 1.23 for HDFC and 1.47 for ICICI. These substantial values indicate that customers' perception of security and privacy is significantly shaped by their satisfaction levels with the respective banks' mobile banking services. Therefore, the hypothesis that perceived security and privacy differ significantly among customers of ICICI Bank and HDFC Bank is **accepted**, as customer satisfaction significantly impacts perception, and these impacts differ between the banks.

Conclusion

This study reveals significant differences in customer perceptions and satisfaction levels regarding mobile banking services between ICICI Bank and HDFC Bank. The Structural Equation Model (SEM) highlights that perceived security, privacy, and overall satisfaction are significantly influenced by service features, user experience, and transaction efficiency, which vary between the two banks. HDFC's service features and user experience positively impact satisfaction, while ICICI's satisfaction is mixed due to negative influences from service features and problems. These insights suggest that both banks have distinct strengths and areas for improvement in their mobile banking offerings, providing a foundation for enhancing customer experience and satisfaction.

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