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A STUDY ON CUSTOMER SATISFACTION TOWARDS DIGITAL BANKING SERVICES OF HDFC BANK IN MADURAI CITY

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Abstract

This study examines customer satisfaction towards HDFC Bank's digital banking services in Madurai City, focusing on both measuring satisfaction levels and identifying priority areas for improvement. In the era of digital transformation, banking services have shifted towards online and mobile platforms, offering convenience, speed, and efficiency. The research adopts a mixed-method approach using Garrett Ranking Analysis and Regression Analysis to gain a comprehensive understanding of customer perspectives. Primary data were collected from 100

respondents through a structured questionnaire employing a 5-point Likert scale to assess satisfaction dimensions such as ease of use, transaction speed, security, reliability, accessibility, and customer support. Garrett Ranking Analysis was applied to prioritize influencing factors, while Regression Analysis examined the role of demographic variables including age, gender, education, occupation, and income. Findings reveal that transaction security, application reliability, and user-friendly interfaces are critical determinants of satisfaction, while demographic influences vary in their impact. The study offers actionable insights for HDFC Bank to enhance



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digital services, customize offerings for different customer segments, and improve the overall digital banking experience.

Keywords: digital banking, customer satisfaction, Garrett ranking analysis, regression analysis, HDFC Bank, Madurai City, demographic factors, service quality, online banking, mobile banking

Introduction

The banking industry in India has undergone significant changes over the past few decades, evolving from traditional branch-based operations to technology-driven service delivery models. Historically, banking in India was dominated by public sector banks, with customer interactions primarily taking place in physical branches. However, with the liberalization of the Indian economy in the early 1990s and the entry of private sector banks, the sector witnessed a competitive transformation. HDFC Bank, established in 1994 as one of the first private sector banks approved by the Reserve Bank of India, quickly emerged as a leader in adopting innovative technology to enhance customer service. The introduction of digital banking services in India can be traced back to the late 1990s with the advent of core banking solutions, internet banking, and ATMs. Over the years, technological advancements such as mobile banking, Unified Payments Interface (UPI), and secure online transactions have revolutionized the way customers access

financial services. HDFC Bank, in particular, has been at the forefront of this digital revolution, offering a wide range of services including net banking, mobile applications, digital wallets, and AI-based customer support to meet the growing expectations of tech-savvy customers. Customer satisfaction has always been a key performance indicator for banks. In the digital era, it depends not only on service quality but also on the extent to which services align with the diverse needs of customers from different demographic segments. Factors such as age, gender, education level, occupation, and income can shape customers' experiences, preferences, and trust in digital banking platforms. Understanding these demographic influences helps banks design better customer engagement strategies, personalize services, and ensure inclusivity in service delivery. This study aims to explore the relationship between demographic factors and customer satisfaction towards digital banking services of HDFC Bank in Madurai City. By employing regression analysis, the research seeks to quantify the impact of demographic variables and provide actionable insights for improving service quality and enhancing customer loyalty in the digital banking landscape.

Review of Literature

Davis (1989) developed the Technology Acceptance Model (TAM), which explains how perceived usefulness and perceived ease of use influence user acceptance of



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technology. This model has been widely applied in studies of digital banking adoption and customer satisfaction. Joseph, McClure, and Joseph (1999) examined the role of service quality in the banking sector and found that technology-based delivery channels significantly enhance service quality, thereby influencing customer satisfaction. Jayawardhena and Foley (2000) studied changes in the UK banking sector, highlighting the growth of internet banking and its impact on service delivery and customer interaction.

Jun and Cai (2001) identified the key determinants of internet banking service quality through a content analysis, emphasizing website design, reliability, and responsiveness as major drivers of customer satisfaction. Gefen, Karahanna, and Straub (2003) integrated trust into the TAM framework, demonstrating that trust is a crucial factor in building positive online banking relationships. Similarly, Mukherjee and Nath (2003) proposed a model highlighting the importance of trust in sustaining customer loyalty in online relationship banking. Cheng, Lam, and Yeung (2006) conducted an empirical study in Hong Kong, identifying that convenience, perceived usefulness, and trust are key motivators for adopting internet banking services. Herington and Weaven (2009) emphasized that e-service quality in banking comprising website efficiency, system availability, and privacy

plays a vital role in enhancing customer satisfaction in digital channels.

Ankit (2011) studied Indian online banking customers and found that service quality dimensions like reliability, responsiveness, and personalization significantly affect customer satisfaction and retention. Ladhari, Ladhari, and Morales (2011) compared Canadian and Tunisian customers, revealing cultural differences in perceptions of bank service quality. Gupta and Bansal (2012) developed an instrument to measure internet banking service quality in India, providing a framework for evaluating customer satisfaction across digital platforms. Aboelmaged and Gebba (2013) examined mobile banking adoption using TAM and the Theory of Planned Behavior, confirming that perceived ease of use, perceived usefulness, and trust influence adoption intention. Ariff, Yun, Zakuan, and Ismail (2013) also found that service quality directly impacts customer loyalty in internet banking. Chauhan (2015) analyzed internet banking in India and concluded that service quality and security are critical for enhancing customer satisfaction. Amin (2016) investigated the relationship between internet banking service quality, e-customer satisfaction, and e-customer loyalty, concluding that high service quality fosters stronger customer loyalty. Alalwan, Dwivedi, and Rana (2017) extended UTAUT2 by incorporating trust, demonstrating that trust, performance expectancy, and effort expectancy significantly influence mobile



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banking adoption. Chawla and Joshi (2017) conducted a cluster analysis in India, revealing distinct customer segments with varying perceptions of mobile banking services. Asiyambi and Ishola (2018) studied mobile banking in Nigeria and found that security, ease of use, and responsiveness are significant determinants of customer satisfaction. Dwivedi et al. (2019) revisited the UTAUT model, proposing revisions to better explain technology adoption behavior in various contexts, including banking.

Objectives of the Study

- ❖ To identify and rank the key factors influencing customer satisfaction towards digital banking services of HDFC Bank in Madurai City using Garrett Ranking Analysis.
- ❖ To examine the impact of demographic variables such as gender, age, education, occupation, and monthly income on customer satisfaction towards HDFC Bank's digital banking services through Regression Analysis.
- ❖ To suggest strategies for enhancing customer satisfaction with digital banking services of HDFC Bank based on the findings from both Garrett Ranking Analysis and Regression Analysis.

Research Methodology

The present study is both descriptive and analytical in nature, focusing on customer satisfaction towards digital banking services

of HDFC Bank in Madurai City. The research is based on primary data collected from 100 respondents who are existing customers of HDFC Bank and use its digital banking services. A structured questionnaire was designed to gather information on demographic factors such as gender, age, education, occupation, and monthly income, as well as satisfaction levels regarding various service aspects. The questionnaire also included items related to factors influencing satisfaction, which were later analysed using Garrett Ranking Analysis to identify and rank the most significant factors. Secondary data was collected from books, journals, research articles, bank reports, and official websites to supplement the study. The sampling method adopted was convenience sampling, considering the easy accessibility of respondents in Madurai City. The statistical tools used for the study included Garrett Ranking Analysis to prioritise satisfaction factors and Multiple Regression Analysis to examine the influence of demographic variables on customer satisfaction. Data was processed and analysed using SPSS software to ensure accuracy and reliability. The results of the study provide valuable insights for HDFC Bank to improve its digital banking services based on customer needs and demographic profiles.

Hypothesis of the Study

- ❖ Null Hypothesis (H_0): There is no significant influence of demographic

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factors (Gender, Age, Education, Occupation, and Monthly Income) on customer satisfaction towards digital banking services of HDFC Bank in Madurai City.

- ❖ Alternative Hypothesis (H_1): There is a significant influence of demographic factors (Gender, Age, Education, Occupation, and Monthly Income) on customer satisfaction towards digital banking services of HDFC Bank in Madurai City.

Analysis of Customer Satisfaction and Ranking of Influencing Factors

The analysis of customer satisfaction statements, based on a 5-point Likert scale, measures the satisfaction level of customers with HDFC Bank’s digital banking services. The Garrett Ranking Analysis, using the ranking methodology, identifies the most and least important factors affecting satisfaction. This dual approach highlights both satisfaction levels and priority areas for service enhancement. The findings will help improve the user experience and address customer needs more effectively.

Table 1 Garrett Ranking Analysis of Customer Satisfaction towards Digital Banking Services of HDFC Bank in Madurai City

Factors	Garrett Ranking Analysis Rank										Total	Garret Score	Mean Score	Rank		
	1	2	3	4	5	6	7	8	9	10						
	Garrett Rank Scale Value															
	82	70	63	57	52	47	42	37	30	19						
	(No. of Respondents)															
Ease of use and navigation	f	10	11	11	10	10	9	9	10	10	100	5044	50.440	4		
	fx	820	770	693	570	520	470	378	333	300	190					
Transaction speed	f	11	9	11	9	10	11	12	11	9	7	100	5089	50.890	3	
	fx	902	630	693	513	520	517	504	407	270	133					
Security and privacy of transactions	f	10	12	12	11	11	12	10	8	9	5	100	5260	52.600	1	
	fx	820	840	756	627	572	564	420	296	270	95					
Customer support and grievance redressal	f	11	8	9	12	11	10	9	9	11	10	100	4986	49.860	6	
	fx	902	560	567	684	572	470	378	333	330	190					
Availability of multiple services (loans, cards, payments, etc.)	f	10	9	12	10	9	9	9	10	10	12	100	4943	49.430	7	
	fx	820	630	756	570	468	423	378	370	300	228					
Compatibility with mobile devices and platforms	f	9	9	9	11	9	11	9	12	10	11	100	4878	48.780	8	
	fx	738	630	567	627	468	517	378	444	300	209					
Frequency of technical issues or downtime	f	9	12	11	9	9	9	9	11	10	9	11	100	4986	49.860	5
	fx	738	840	693	513	468	423	462	370	270	209					
Regular updates and feature enhancements	f	9	11	8	9	10	9	11	10	10	13	100	4847	48.470	9	
	fx	738	770	504	513	520	423	462	370	300	247					
Notifications and alerts (SMS/email)	f	9	8	9	10	9	10	10	10	11	14	100	4759	47.590	10	
	fx	738	560	567	570	468	470	420	370	330	266					
Overall reliability and trust in HDFC digital banking	f	12	11	8	9	12	9	10	11	11	7	100	5108	51.080	2	
	fx	984	770	504	513	624	423	420	407	330	133					

Note: f=No. of respondents, x=Scale Value, fx=Score and Source: Computed

In the table 1 Garrett Ranking Analysis reveals that security and privacy of transactions is the most important factor influencing customer satisfaction, with the highest mean score of 52.600 and ranked 1st. This indicates that customers place the greatest emphasis on the safety and confidentiality of their digital banking activities. The second most important factor is overall reliability and trust in HDFC digital banking, with a mean score of 51.080. This shows that customers value a dependable and trustworthy banking platform. Transaction speed ranks 3rd (mean score 50.890), highlighting that quick and efficient processing is a key driver of satisfaction. Ease of use and navigation is ranked 4th (mean score 50.440), reflecting the importance of a user-friendly interface. Frequency of technical issues or downtime and customer support & grievance redressal share a similar mean score

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(49.860), ranking 5th and 6th respectively, showing that consistent performance and responsive service are moderately important. Availability of multiple services ranks 7th (mean score 49.430), followed by compatibility with mobile devices and platforms at 8th (48.780). The lowest-ranked factors are regular updates and feature enhancements (rank 9, mean score 48.470) and notifications and alerts (rank 10, mean score 47.590). This suggests that while these features are useful, they are not primary determinants of customer satisfaction compared to security, trust, and performance-related aspects.

Table 2 Regression Analysis of Demographic Factors Influencing Customer Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.955 ^a	0.913	0.908	3.38376	0.913	197.124	5	94	0.000

a. Predictors: (Constant), Monthly Income, Age, Education, Gender, Occupation

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11285.158	5	2257.032	197.124	0.000 ^b
Residual	1076.282	94	11.450		
Total	12361.440	99			

a. Dependent Variable: Customer Satisfaction towards Digital Banking Services of HDFC Bank

b. Predictors: (Constant), Monthly Income, Age, Education, Gender, Occupation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.712	1.244		5.394	0.000
Gender	-7.425	1.795	-0.333	-4.137	0.000
Age	-2.145	0.396	-0.255	-5.421	0.000
Education	12.091	0.799	1.133	15.131	0.000
Occupation	-4.075	1.094	-0.416	-3.726	0.000
Monthly Income	6.936	1.055	0.653	6.578	0.000

a. Dependent Variable: Customer Satisfaction towards Digital Banking Services of HDFC Bank

In the table 2 regression analysis conducted to examine the influence of demographic factors on customer satisfaction towards digital banking services of HDFC Bank in Madurai City indicates a strong relationship between the variables. The model yielded an R² value of 0.913, meaning that 91.3% of the variation in customer satisfaction can be explained by the predictors – Gender,

Age, Education, Occupation, and Monthly Income. The high F-value of 197.124 with a significance level of 0.000 confirms that the model is statistically significant and fit for prediction. The coefficients analysis reveals that Education and Monthly Income have a positive and significant influence on customer satisfaction. Education, with the highest standardized coefficient ($\beta = 1.133$), emerged as the most influential positive factor, suggesting that more educated customers tend to be more satisfied with digital banking services. Similarly, Monthly Income ($\beta = 0.653$) also shows a strong positive effect, indicating that customers with higher income levels are more satisfied. Conversely, Gender ($\beta = -0.333$), Age ($\beta = -0.255$), and Occupation ($\beta = -0.416$) exhibit significant negative effects on customer satisfaction. This implies that certain gender categories, older age groups, and specific occupational groups are likely to report lower satisfaction levels with digital banking services. Importantly, all predictors are statistically significant at the 1% level ($p < 0.01$), confirming the robustness of the results. In conclusion, the study highlights that demographic factors play a crucial role in shaping customer satisfaction with digital banking services of HDFC Bank in Madurai City. Education and Monthly Income are the most influential positive drivers, while Gender, Age, and Occupation require strategic attention to improve overall satisfaction levels.



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Conclusion

The present study on customer satisfaction towards HDFC Bank's digital banking services in Madurai City highlights the growing importance of technology-driven banking in enhancing customer experience. The analysis, based on a 5-point Likert scale, revealed that customers are generally satisfied with features such as transaction speed, 24/7 availability, and ease of access to various banking facilities. Garrett Ranking Analysis identified key influencing factors, with security and reliability ranking as top priorities, followed by user-friendly interface, transaction accuracy, and customer service responsiveness. Regression analysis showed that demographic factors such as age, education, and income significantly influence satisfaction levels, indicating that different customer segments have varying expectations and preferences. The findings suggest that while HDFC Bank's digital platforms are well-received, further improvements are needed in ensuring seamless navigation, enhancing cybersecurity measures, and offering more personalized digital solutions. By focusing on the high-priority factors revealed through Garrett ranking and addressing the demographic variations identified through regression analysis, HDFC Bank can further strengthen its customer base. Ultimately, the study provides actionable insights for sustaining customer loyalty, improving digital service adoption, and gaining a competitive edge in the evolving digital banking sector.

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