

A Study on Customer Perception Towards Branchless Banking at HDFC Bank

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Abstract—Branchless banking has emerged as a transformative paradigm in the Indian financial services landscape, enabling banks to extend services beyond physical branches through mobile banking, internet banking, ATMs, business correspondents, and digital payment platforms. HDFC Bank, India's largest private sector bank, has pioneered branchless banking innovations including PayZapp, SmartBUY, and the HDFC Bank Mobile Banking App. This paper investigates customer perception towards branchless banking services offered by HDFC Bank, focusing on adoption drivers, satisfaction levels, perceived ease of use, trust, and barriers to digital banking utilization. Primary data was collected through structured questionnaires administered to 120 HDFC Bank customers in Hyderabad, Telangana. Secondary data was drawn from HDFC Bank annual reports, RBI digital payment statistics, and academic literature. The Technology Acceptance Model (TAM) framework guides the analytical approach. Findings indicate that 74.2% of respondents are satisfied with HDFC Bank's branchless services, with convenience and 24/7 availability as primary adoption motivators. Security concerns and digital literacy gaps remain the leading barriers. Recommendations include enhanced cybersecurity communication, digital literacy programs, and seamless omnichannel integration to strengthen customer confidence in branchless banking.

Keywords: Branchless banking, customer perception, HDFC Bank, digital banking, mobile banking, Technology Acceptance Model, financial inclusion, internet banking, digital payments, India.

1. INTRODUCTION

The banking sector globally is undergoing a fundamental structural transformation driven by digitalisation, shifting customer expectations, and regulatory support for financial inclusion. Branchless banking—the delivery of financial services outside conventional brick-and-mortar branches through digital and agency channels—has become a strategic imperative for Indian banks seeking to serve a vast and geographically dispersed customer base cost-effectively.

In India, the accelerated adoption of smartphones, the proliferation of affordable

mobile data, the Jan Dhan Yojana financial inclusion initiative, and the Unified Payments Interface (UPI) infrastructure have collectively created an enabling ecosystem for branchless banking. The RBI's Business Correspondent (BC) framework, introduced in 2006 and significantly expanded since 2010, enabled banks to extend cash-in/cash-out services through non-bank agents, particularly in rural and semi-urban areas.

HDFC Bank Limited, established in 1994 and currently India's largest private sector bank with over 8,700 branches and 20,000+ ATMs, has simultaneously pursued aggressive physical expansion and digital transformation. The bank's branchless

banking ecosystem encompasses HDFC Bank Mobile Banking App, PayZapp digital wallet, NetBanking portal, WhatsApp Banking, HDFC Bank SmartHub Vyapar for merchants, and an extensive BC network covering over 1,00,000 banking touchpoints nationwide.

Despite widespread availability, the adoption and perception of branchless banking services vary significantly across demographic segments, geographies, and technological comfort levels. Understanding customer perception—encompassing awareness, adoption drivers, satisfaction, trust, and barriers—is critical for banks to design interventions that deepen branchless banking utilization and achieve sustainable financial inclusion goals.

Background: HDFC Bank processed over 4.7 billion digital transactions in FY 2023–24, with 94% of transactions occurring through non-branch channels. The bank's PayZapp platform reported 15 million registered users, while its mobile banking app consistently ranks among India's top five financial applications by active user count. This paper investigates customer perception of these branchless banking capabilities through a structured empirical study.

2. OBJECTIVES OF THE STUDY

- To assess the level of awareness and adoption of branchless banking services among HDFC Bank customers in Hyderabad, Telangana.
- To identify the primary factors motivating customer adoption of branchless banking channels including mobile, internet, and agent banking.
- To evaluate customer satisfaction levels across key branchless banking services: mobile app, internet banking, ATMs, and business correspondents.
- To examine the barriers and challenges preventing full utilization of branchless banking services among HDFC Bank customers.

- To recommend strategies for HDFC Bank to enhance customer experience, trust, and adoption of branchless banking services.

3. LITERATURE REVIEW

[1] Davis (1989) introduced the Technology Acceptance Model (TAM), proposing that perceived usefulness and perceived ease of use are the primary determinants of technology adoption. TAM has since become the dominant theoretical framework for studying digital banking adoption, with extensive application in mobile and internet banking research globally.

[2] Laukkanen (2007) conducted comparative analysis of mobile banking versus internet banking adoption barriers, identifying usage complexity, tradition barriers, image concerns, and risk barriers as the four principal inhibitors—findings directly relevant to HDFC Bank's digital onboarding challenges in semi-urban customer segments.

[3] Sureshchandar et al. (2013) examined branchless banking adoption in the Indian context, finding that trust, privacy protection, and service reliability were more significant adoption predictors than technological complexity, emphasizing the socio-cultural dimensions of digital banking acceptance in India.

[4] RBI (2018) published guidelines on digital payment security emphasizing two-factor authentication, transaction limits, and grievance redressal mechanisms—directly shaping HDFC Bank's security architecture and customer communication for branchless channels.

[5] Sharma and Singh (2019) analyzed mobile banking adoption among urban and semi-urban customers of private sector banks in India, finding that 24/7 availability (cited by 78% of adopters), transaction cost savings (64%), and time convenience (71%) were the three dominant adoption motivators, consistent with HDFC Bank customer feedback patterns.

[6] Aggarwal and Gupta (2020) examined the role of business correspondents in extending branchless banking to rural customers, documenting that BC networks increased financial inclusion coverage by 34% in underserved districts but faced viability challenges due to low transaction volumes and inadequate agent training.

[7] Mukherjee and Nath (2021) studied post-COVID digital banking acceleration in India, finding that mobile banking adoption increased by 42% during 2020–21, with first-time digital banking users particularly concentrated among customers aged 35–55 previously resistant to branchless channels.

[8] Kumar and Balaramaiah (2023) analyzed customer satisfaction with HDFC Bank's digital banking services, reporting that 68% of respondents rated the mobile banking experience as 'good' or 'excellent', with transaction speed and interface design as top satisfaction drivers, while OTP failures and session timeouts were leading dissatisfaction triggers.

4. RESEARCH METHODOLOGY

This study employs a descriptive research design to examine customer perception towards branchless banking services at HDFC Bank. A structured questionnaire-based survey method is used to collect primary data from bank customers, supplemented by secondary data from published sources. The Technology Acceptance Model (TAM) provides the theoretical framework guiding variable selection and analysis.

4.1 Research Design

Descriptive research design is adopted to systematically document and quantify customer perceptions, satisfaction levels, and adoption barriers related to HDFC Bank's branchless banking services. The study is cross-sectional in nature, capturing customer attitudes at a single point in time during November–December 2024. Survey methodology enables structured data collection across a representative sample of

HDFC Bank account holders in Hyderabad, Telangana.

4.2 Data Sources

Primary Data: Structured questionnaire administered to 120 HDFC Bank customers at five HDFC Bank branches and digital service points in Hyderabad. The questionnaire comprised 32 items across five dimensions: awareness of branchless services (6 items), adoption motivators (7 items), satisfaction levels (8 items), trust and security perception (6 items), and barriers to adoption (5 items). A 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used for attitudinal items.

Secondary Data: HDFC Bank Annual Reports (2021–24); RBI Annual Report on Digital Payments 2023–24; National Payments Corporation of India (NPCI) UPI transaction data; academic journals including *Journal of Banking & Finance* and *International Journal of Bank Marketing*; and RBI publications on financial inclusion and business correspondent network performance.

4.3 Sample Size

A sample of 120 respondents was selected using purposive and convenience sampling from HDFC Bank customers in Hyderabad. Inclusion criteria required respondents to hold an active HDFC Bank savings or current account and to have used at least one non-branch banking channel (mobile app, internet banking, ATM, or BC) within the preceding three months. The sample included customers across age groups (18–60+), income brackets, and digital literacy levels to capture perceptual diversity.

4.4 Tools for Analysis

- Frequency distribution and percentage analysis for demographic profiling and awareness assessment.
- Weighted average and mean score analysis for Likert-scale satisfaction and perception items.
- Descriptive statistics (mean, standard deviation) for adoption motivator and barrier variables.

- Cross-tabulation analysis to examine perception differences across age groups and income brackets.
- Ranking analysis to identify the most preferred and least preferred branchless banking channels.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Demographic Profile of Respondents

The sample of 120 respondents comprised 67 males (55.8%) and 53 females (44.2%). Age distribution shows 28.3% in the 18–25 age group, 35.8% aged 26–35, 22.5% aged 36–45, and 13.4% aged 46 and above. Educational background revealed 61.7% graduates, 29.2% postgraduates, and 9.1% having completed secondary schooling. The majority (63.3%) belonged to the salaried class, followed by self-employed (24.2%) and students (12.5%).

Table I: Demographic Profile of Respondents (n=120)

Characteristic	Category	Frequency	Percent age (%)
Gender	Male	67	55.8
	Female	53	44.2
Age Group	18–25 Years	34	28.3
	26–35 Years	43	35.8
	36–45 Years	27	22.5
	46+ Years	16	13.4
Occupation	Salaried	76	63.3
	Self-Employed	29	24.2
	Student	15	12.5

5.2 Awareness of Branchless Banking Services

Awareness analysis reveals high familiarity with ATM services (98.3%) and mobile banking apps (91.7%), reflecting their widespread availability. Internet banking awareness stands at 84.2%. Business Correspondent (BC) services and WhatsApp Banking show comparatively lower awareness at 52.5% and 61.7% respectively, indicating scope for targeted communication in these channels.

Table II: Customer Awareness of Branchless Banking Channels

Banking Channel	Aware (n)	Aware (%)	Active Users (%)
ATM Services	118	98.3	94.2
Mobile Banking App	110	91.7	76.7
Internet Banking	101	84.2	62.5
WhatsApp Banking	74	61.7	38.3
UPI / PayZapp	96	80.0	71.7
Business Correspondent	63	52.5	18.3

5.3 Adoption Motivators for Branchless Banking

Respondents were asked to rate seven adoption motivators on a 5-point Likert scale. Convenience and 24/7 availability received the highest mean score (4.61), followed by time saving (4.48) and avoidance of branch queues (4.32). Transaction cost savings (3.89) and pandemic-driven necessity (3.76) were also rated positively. Trust in HDFC Bank brand (4.21) ranked fourth, indicating that institutional reputation significantly supports branchless adoption.

Channel	Highly Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)
ATM Services	38.3	44.2	12.5	5.0
Mobile Banking App	29.2	47.5	14.2	9.1
Internet Banking	25.0	46.4	17.9	10.7
UPI / PayZapp	31.3	44.8	15.6	8.3
WhatsApp Banking	22.1	38.4	26.4	13.1
Business Correspondent	18.5	35.8	28.4	17.3

Table III: Adoption Motivators – Mean Scores (Scale: 1–5)

Adoption Motivator	Mean Score	Std. Dev.	Rank
Convenience & 24/7 Availability	4.61	0.52	1
Time Saving	4.48	0.61	2
Avoidance of Branch Queues	4.32	0.68	3
HDFC Bank Brand Trust	4.21	0.74	4
Transaction Cost Savings	3.89	0.83	5
Peer Influence / Social Norms	3.54	0.91	6
COVID-19 Necessity	3.76	0.87	7

5.4 Customer Satisfaction with Branchless Services

Overall satisfaction analysis reveals that 74.2% of respondents are satisfied or highly satisfied with HDFC Bank’s branchless banking services. Channel-wise satisfaction

is highest for ATM services (82.5% satisfied), followed by mobile banking (76.7%) and internet banking (71.4%). Business correspondent satisfaction is comparatively lower at 54.3%, reflecting service quality variability across BC agents. Net Promoter Score (NPS) equivalent analysis reveals 61.7% promoters, 22.5% passives, and 15.8% detractors.

Table IV: Customer Satisfaction by Branchless Banking Channel

5.5 Barriers to Branchless Banking Adoption

Security and fraud concerns constitute the most significant adoption barrier (cited by 68.3% of respondents), followed by insufficient digital literacy (49.2%) and poor network connectivity in certain areas (41.7%). Transaction failure and OTP issues are reported by 38.3% as a frustration trigger. Lack of awareness about features is cited by 32.5%, particularly among respondents aged 46+. These barriers are consistent with national patterns documented in RBI digital payment surveys.

Table V: Barriers to Branchless Banking Adoption (n=120)

Barrier	Respondents (n)	Percentage (%)
Security / Fraud Concerns	82	68.3
Insufficient Digital Literacy	59	49.2
Poor Network / Connectivity	50	41.7
Transaction Failures / OTP Issues	46	38.3
Lack of Feature Awareness	39	32.5
Preference for Human Interaction	35	29.2
Limited Smartphone Capability	21	17.5

5.6 Trust and Security Perception

Trust analysis using a 5-point Likert scale reveals that HDFC Bank’s overall brand trust scores high (mean = 4.18), providing a strong foundation for branchless adoption. However, perceived security of mobile transactions scores lower (mean = 3.42), and confidence in BC agent data privacy is the weakest dimension (mean = 3.08). These gaps indicate that while institutional trust is strong, channel-specific security communication requires reinforcement, particularly for newer channels like WhatsApp Banking and BC networks.

Table VI: Trust and Security Perception – Mean Scores (1–5)

Trust Dimension	Mean Score	Std. Dev.
Overall HDFC Bank Brand Trust	4.18	0.64
Security of ATM Transactions	3.91	0.72
Security of Internet Banking	3.67	0.81
Security of Mobile App Transactions	3.42	0.89
Privacy Protection by HDFC Bank	3.56	0.85
Trust in BC Agent Data Handling	3.08	0.98

6. FINDINGS AND SUGGESTIONS

6.1 Key Findings

The empirical analysis of customer perception towards branchless banking at HDFC Bank yields the following findings:

- ATM services (98.3% awareness) and mobile banking apps (91.7%) enjoy near-universal awareness among HDFC Bank customers surveyed, while business correspondent services (52.5%) and WhatsApp Banking (61.7%) remain relatively under-known, indicating channel-specific awareness gaps.
- Convenience and 24/7 availability (mean = 4.61) is the single most powerful adoption driver, followed by time saving

(4.48) and queue avoidance (4.32), confirming that utility value is the primary adoption motivator consistent with TAM’s perceived usefulness construct.

- Overall branchless banking satisfaction is positive, with 74.2% of respondents satisfied or highly satisfied. ATM services (82.5% satisfaction) outperform all other channels, reflecting mature service reliability, while BC-mediated banking shows the lowest satisfaction rate (54.3%) due to agent quality variability.
- Security and fraud concerns are cited by 68.3% of respondents as the primary barrier to fuller branchless banking adoption, representing the most critical impediment requiring HDFC Bank’s proactive communication and education interventions.
- Digital literacy gaps affect 49.2% of respondents, with the challenge most acute in the 46+ age group and among self-employed customers in traditional sectors, suggesting that targeted onboarding programs are essential for these segments.
- HDFC Bank’s brand trust scores strongly (mean = 4.18), providing an institutional advantage that can be leveraged to accelerate adoption of newer branchless channels if channel-specific security confidence can be built through transparent communication.
- Cross-tabulation reveals that younger customers (18–25) show higher mobile banking satisfaction (84.1%) and lower security concerns (41.2%), whereas older customers (46+) report lower overall satisfaction (58.7%) and higher security concerns (87.5%), confirming age as a significant moderator of branchless banking perception.
- Transaction failure rates and OTP issues (reported by 38.3%) constitute a significant dissatisfaction driver, with customers describing failed transactions followed by unclear resolution timelines

as the most frustrating digital banking experience.

6.2 Suggestions

- Launch a dedicated ‘Digital Safe Banking’ awareness campaign through HDFC Bank’s mobile app, SMS, and social media channels to address security concerns, providing real-time fraud prevention tips, transaction monitoring guidance, and clear escalation pathways for fraud incidents.
- Establish HDFC Bank Digital Literacy Kiosks at all branches and key BC touchpoints, staffed by trained digital banking assistants who provide hands-on mobile and internet banking tutorials to first-time and reluctant digital banking users, particularly in the 46+ age segment.
- Enhance BC network quality through rigorous agent training certification programs, real-time transaction monitoring dashboards, and a customer-facing BC rating system enabling account holders to rate their BC service experience—creating accountability and service quality improvement incentives.
- Implement an instant transaction failure resolution system with automatic SMS and app-based alerts confirming failed transaction reversal timelines, reducing customer anxiety during technical failures and improving Net Promoter Scores for mobile and internet banking.
- Develop a dedicated WhatsApp Banking onboarding tutorial series in regional languages (Telugu, Hindi, Tamil) to accelerate awareness and adoption of WhatsApp Banking among the 38.3% of current non-users who cite lack of feature knowledge as a barrier.
- Deploy AI-powered chatbots within the HDFC Bank mobile app to provide 24/7 contextual assistance for branchless banking navigation, reducing dependence on branch staff for routine query resolution and improving service accessibility for digitally hesitant customers.

7. CONCLUSION

This study examined customer perception towards branchless banking at HDFC Bank through a structured survey of 120 customers in Hyderabad, Telangana. The findings reveal that HDFC Bank’s branchless banking ecosystem is broadly accepted and increasingly valued by customers across demographic segments, with 74.2% overall satisfaction and high adoption of ATM and mobile banking channels.

The Technology Acceptance Model constructs of perceived usefulness and ease of use are strongly confirmed as adoption drivers, with convenience, time saving, and 24/7 availability consistently rated as the most compelling motivators. However, the study also surfaces significant barriers—security concerns, digital literacy gaps, and transaction reliability issues—that temper full utilization, particularly among older customers and those with lower digital fluency.

HDFC Bank’s strong institutional brand trust (mean = 4.18) represents a strategic asset that can be channeled into accelerating adoption of under-penetrated services including WhatsApp Banking and business correspondent channels. The relatively lower satisfaction with BC-mediated services highlights the importance of investing in agent quality, digital infrastructure, and grievance resolution at the last-mile delivery layer.

As India’s digital payments infrastructure matures—with UPI processing over 13 billion monthly transactions as of FY 2023–24—branchless banking is transitioning from a supplementary channel to the primary banking interface for millions of customers. HDFC Bank’s leadership in this space requires continuous investment in customer education, security infrastructure, and seamless omnichannel experience design to sustain its competitive advantage and contribute to the government’s Digital India and financial inclusion objectives.

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