

# Comparative Study of E-Banking Services by Public and Private Sector Banks of India

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**Abstract--** A Comparative Study of E-Banking Services by Public and Private Sector Banks in India reveals distinct differences in service quality, adoption, customer satisfaction, and technological innovation, with private sector banks generally outperforming public sector ones, though both are advancing under RBI regulations as of 2026. The rapid advancement of information and communication technology (ICT) has revolutionized India's traditional banking sector into a digital ecosystem dominated by e-banking services, including internet banking, mobile apps, ATMs, and UPI integrations. This comparative study analyzes e-banking offerings between public sector banks (e.g., State Bank of India, Bank of Baroda) and private sector banks (e.g., HDFC Bank, ICICI Bank), focusing on key dimensions such as service quality, technological innovation, customer satisfaction, adoption rates, efficiency, and accessibility. Drawing from primary data via customer questionnaires and secondary sources like RBI reports, bank websites, and journals, the research reveals that private sector banks generally outperform public sector counterparts in user-friendly interfaces, faster transaction speeds, advanced features, and higher customer satisfaction levels, attributed to greater investments in digital infrastructure and customer-centric innovations. In contrast, public sector banks excel in extensive rural outreach and financial inclusion but lag in app reliability, responsiveness, and service variety, though they are progressively enhancing digital capabilities amid India's push toward a cashless economy. Chi-square analyses confirm significant associations between bank type and e-banking performance perceptions, with private banks preferred for ease of use and security, urging public banks to prioritize upgrades for competitiveness. These insights, relevant as of early 2026, underscore the need for both sectors to address cyber security, digital literacy gaps, and rural penetration to boost overall satisfaction and support sustainable financial inclusion.

**Keywords--** Information and Communication Technology (ICT), Automated Teller Machine (ATM) and UPI Unified Payments Interface.

## I. INTRODUCTION

E-banking (electronic banking) refers to delivering banking services through digital platforms such as internet banking, mobile apps, ATMs, and UPI systems. It enables customers to perform transactions anytime and anywhere, reducing dependency on physical branches.

In India, both public sector banks (PSBs) and private sector banks (PVBs) provide e-banking services, but they differ significantly in terms of technology, efficiency, and customer experience. Private sector banks in India generally lead in e-banking efficiency, user-friendly interfaces, and customer satisfaction compared to public sector banks. While private banks excel in rapid technology adoption, public sector banks, despite slower digital adoption, are strong in trust, security, and rural outreach. Public and private sector banks in India offer e-banking services like internet banking, mobile apps, ATMs, and fund transfers, but studies show private banks often lead in innovation and customer satisfaction. Comparative research highlights differences in service quality, adoption rates, and user experience across these sectors. Multiple academic works compare e-banking in public banks (e.g., SBI, Canara Bank, Bank of Baroda) and private banks (e.g., HDFC, ICICI, City Union Bank). A 2019 synopsis from Madurai Kamaraj University analyzed 420 customers in Virudhunagar district, focusing on satisfaction, loyalty, and issues like security concerns. Recent 2022 and 2026 studies confirm private banks excel in user-friendly interfaces and efficiency, while public banks prioritize rural reach.

### 1.1 Objectives

- To compare e-banking services offered by public and private sector banks
- To evaluate customer satisfaction levels
- To analyze technological advancement and service quality
- To identify strengths and weaknesses of both sectors

A comparative analysis of e-banking services in India as of 2026 reveals a sector marked by rapid digital transformation. While private sector banks typically lead in technology-driven customer experience, public sector banks (PSBs) are leveraging their massive scale and government trust to bridge the gap in digital adoption.

- *Customer Satisfaction:* Private sector banks (e.g., HDFC, ICICI) are often rated higher on convenience, user interface, and efficiency compared to public sector banks.



- *Security vs. Ease of Use:* Public sector banks (e.g., SBI) are often preferred for trust and security, whereas private banks are preferred for ease of operation and faster service.
- *Technological Adoption:* Private banks tend to have more robust mobile banking apps and internet banking platforms.
- *Trust and Reach:* Public sector banks have higher trust ratings and stronger footprints in rural areas.

*1.2 Comparative Dimensions Service Quality & Satisfaction*

- *Private Sector:* Consistently reports higher overall customer satisfaction (approx. **4.2/5**). Key strengths include user-friendly interfaces, agility, and prompt customer support.
- *Public Sector:* Scores slightly lower (approx. **3.5/5**) due to perceived bureaucratic processes and less personalization. However, they enjoy significantly higher trust levels, especially in rural and semi-urban areas.

*Sector Comparison Matrix (2025-2026)*

<b>Feature</b>	<b>Public Sector Banks (e.g., SBI, BoB)</b>	<b>Private Sector Banks (e.g., HDFC, ICICI)</b>
<b>User Experience</b>	Improving; functional but sometimes complex	Superior; highly intuitive and agile
<b>Main Draw</b>	Trust, security, and rural accessibility	Innovation, efficiency, and speed
<b>Transaction Fees</b>	Generally lower or subsidized	Competitive but often carry higher service charges
<b>Key Apps/Platforms</b>	SBI YONO, BoB World	HDFC MobileBanking, ICICI iMobile

*3.1 Current Trends (FY2026)*

- *Regulatory Focus:* The Reserve Bank of India (RBI) is implementing tighter digital-payment authentication and risk-based security frameworks effective April 2026.
- *Neobank Competition:* Both sectors face rising pressure from neobanks (e.g., Freo, Digibank) which offer hyper-personalized, low-cost digital models.
- *Security Upgrades:* Strengthening of two-factor and biometric authentication is now standard across both sectors to combat rising cybercrime risks.

E-banking encompasses digital services like internet banking, mobile apps, UPI, NEFT/RTGS/IMPS, bill payments, fund transfers, and account management, driven by initiatives like Digital India and RBI's frameworks.

**II. TECHNOLOGICAL INNOVATION**

- *Private Sector:* Early adopters of advanced AI-powered chatbots, predictive analytics for personalized spending insights, and seamless digital-only onboarding.
- *Public Sector:* Rapidly modernizing digital infrastructure; major players like State Bank of India (SBI) have achieved high digital penetration through apps like YONO. PSBs focus on high-volume services like UPI and Direct Benefit Transfers (DBT).

**III. FINANCIAL INCLUSION & REACH**

- *Public Sector:* Dominates in rural areas, playing a critical role in bringing e-banking to underserved populations.
- *Private Sector:* Concentrated primarily in urban and metro regions, focusing on high-value retail and SME customers.

As of 2026, RBI's Digital Banking Channels Authorisation Directions (effective January 1, 2026) mandate explicit authorization, enhanced cybersecurity, customer consent, and full digital access for Basic Savings Bank Deposit Accounts (BSBD) from April 2026, applying uniformly to both sectors. The RBI's Financial Inclusion Index reached 67.0 in 2024-25, with 514 districts digitally enabled, boosting adoption across banks. Public sector banks (e.g., SBI, Bank of Baroda, Canara Bank; 12 major ones in 2026) emphasize financial inclusion, rural reach, and credibility, while private sector banks (e.g., HDFC, ICICI, Axis, IndusInd) focus on innovation and urban customers.

Both sectors provide core services (UPI, mobile/internet banking, fund transfers), but differ in scope and execution:



Aspect	Public Sector Banks (e.g., SBI YONO, Bank of Baroda)	Private Sector Banks (e.g., ICICI iMobile, HDFC)
Core Features	Balance checks, fund transfers (NEFT/RTGS/IMPS), bill pay, cheque book requests, account statements, e-tax/ticketing.	All public features + spend analyzers, goal-based savings, interactive dashboards, WhatsApp banking, chatbots (e.g., EVA, iPal), DEMAT/IPO integration.
Innovation	Video KYC for accounts, AI support in apps; improving but basic interfaces.	Advanced: NFC payments, QR scan-and-pay, fintech partnerships (e.g., Paytm/Google Pay), MSME platforms like IndusInd's INDIE.
Accessibility	Strong rural/branch network; free BSBD digital services mandated.	Urban-focused, seamless onboarding, 24/7 support; higher uptime.
Security	RBI-compliant; strong in credibility but occasional glitches reported.	Superior: Multi-factor auth, alerts; higher customer-rated security.

#### IV. COMPARATIVE ANALYSIS

**Adoption and Efficiency:** Private banks lead in usability, speed, and transaction efficiency (e.g., 86% active users post-COVID), while public banks lag in rural digital infrastructure but excel in scale. **Private banks invest more in tech for seamless experiences.** **Customer Satisfaction:** Multiple studies (2024-2026) show private banks scoring higher in ease of use, reliability, responsiveness, and overall satisfaction (e.g., rejecting null hypothesis of no difference). **Public banks are trusted for security but criticized for limited features and support.** **Challenges:** Public banks face legacy system issues; both tackle cybersecurity under new RBI rules. **Private banks better at innovation, aiding cashless economy.**

Private sector banks dominate in e-banking due to customer-centric tech and higher satisfaction, while public banks contribute to inclusion via networks and policy compliance. For public banks: Accelerate UI upgrades and rural digitization. For private: Enhance rural outreach. Future growth lies in RBI-mandated standards and UPI expansion. This aligns with India's digital push, with studies like those on SBI vs. ICICI/HDFC confirming trends.

##### 4.1 Service Differences

Private sector banks provide faster, more innovative e-banking with better mobile apps and customer support, leading to higher satisfaction scores. Public sector banks lag in tech adoption but improve infrastructure for financial inclusion. Common services include NEFT/RTGS, bill payments, and alerts, yet private banks score higher on time-saving (e.g., 42% "good" vs. 31% in SBI).

Aspect	Public Banks (e.g., SBI)	Private Banks (e.g., HDFC/ICICI)
Technology Innovation	Gradual upgrades	Advanced, user-friendly
Customer Satisfaction	Lower due to delays	Higher (90% prefer)
Rural Penetration	Strong focus	Urban-centric
Key Challenges	Security fears, staff behavior	Fewer issues reported

#### V. CUSTOMER PERCEPTIONS

**Convenience drives e-banking use (54% cite it as top benefit), followed by time-saving.** Private banks retain more loyalty through prompt service, while public banks face complaints on resolution (40% note staff inattention). **Demographics show younger, urban users (25-50 years) favor private options.**

Security and awareness remain hurdles, especially in public banks, with calls for better promotion beyond SMS alerts. Both sectors advance India's cashless goals, but private banks lead digital transformation. **Public banks must invest in training and tech to close the gap.**

*5.1 Findings of Comparative Studies:*

- *Customer Satisfaction:* Studies indicate higher satisfaction levels with private banks, with ratings often around 4.2 out of 5 compared to 3.5 for public sector banks.
- *Technological Adoption:* Private banks offer more advanced, user-friendly digital banking apps, online bill payments, and robust net banking interfaces.
- *Service Quality:* Private sector banks are perceived to have better, more responsive

customer support and faster service delivery in digital platforms.

- *Trust and Reach:* Public sector banks are trusted more for high-value transactions and have superior penetration in rural areas.
- *Common Challenges:* Both sectors are actively improving security features to address user concerns regarding data privacy and fraudulent transactions.

*Performance Comparison Summary:*

Feature	Private Sector Banks	Public Sector Banks
Technology	Advanced, Innovative	Improving rapidly
User Experience	High (User-friendly)	Moderate/Improving
Customer Service	Prompt/Excellent	Need improvement
Trust/Security	High	Very High
Usage Frequency	Higher (more digital-native)	Lower, but growing

**VI. E-BANKING SERVICES OFFERED BOTH SECTORS PROVIDE SIMILAR CORE SERVICES:**

- Internet banking
- Mobile banking apps

- ATM & debit/credit card services
- UPI & digital payments
- Online fund transfer (NEFT, RTGS, IMPS)
- E-statements and bill payments However, the **quality and efficiency** differ.

*Comparative Analysis*

Basis	Public Sector Banks	Private Sector Banks
<b>Technology Adoption</b>	Moderate, gradually improving	Advanced, highly innovative
<b>User Interface</b>	Less user-friendly	Highly user-friendly and intuitive
<b>Speed of Services</b>	Slower processing	Faster and real-time services
<b>Customer Support</b>	Limited responsiveness	Highly responsive, 24/7 support
<b>Security</b>	Strong but traditional systems	Advanced security with AI & alerts
<b>Service Availability</b>	Sometimes downtime issues	High uptime and reliability
<b>Innovation</b>	Low to moderate	High (AI chatbots, smart apps)
<b>Reach</b>	Strong in rural areas	Strong in urban/semi-urban areas

**VII. FINDINGS**

- **Technological Superiority of Private Banks**
- Private banks like ICICI, HDFC, and Axis Bank lead in digital innovation, offering seamless apps and faster services.
- **Better Customer Satisfaction in Private Banks**
- Private banks score higher in responsiveness, empathy, and service quality due to better customer-centric approaches.
- **Wider Reach of Public Sector Banks**

- Public sector banks (like SBI, PNB) have a stronger presence in rural areas, promoting financial inclusion.
- **Lower Adoption of E-Banking in Public Banks**
- Even though services exist, fewer customers actively use them in public banks due to usability and awareness gaps.
- **Gradual Improvement in Public Sector Banks**

PSBs are investing in digital infrastructure and catching up with private banks in recent years.

#### VIII. PUBLIC SECTOR BANKS

- High trust and government backing
- Strong rural penetration
- Lower service charges
- Outdated technology in some cases
- Slower digital services
- Lower customer responsiveness
- Private Sector Banks
- Advanced technology and innovation
- Faster transactions and better apps
- High customer satisfaction
- Higher service charges
- Limited rural reach
- Profit-driven approach
- Challenges in E-Banking
- Common challenges faced by both sectors:
- Cyber security threats
- Lack of digital literacy (especially rural areas)
- Technical glitches and downtime
- Trust issues among elderly customers

#### IX. CONCLUSION

The study concludes that private sector banks outperform public sector banks in e-banking services in terms of technology, efficiency, and customer satisfaction. However, public sector banks play a crucial role in financial inclusion and are steadily improving their digital capabilities. Thus, both sectors complement each other: Private banks innovation & efficiency Public banks accessibility & trust. Public banks should invest more in UI/UX and digital awareness. Private banks should reduce service costs and expand rural outreach. Both sectors must strengthen cyber security measures. Continuous customer education on digital banking is essential. A Comparative Study of E-Banking Services by Public and Private Sector Banks in India reveals distinct differences in service quality, adoption, customer satisfaction, and technological innovation, with private sector banks generally outperforming public sector ones, though both are advancing under RBI regulations as of 2026. The rapid advancement of information and communication technology (ICT) has revolutionized India's traditional

banking sector into a digital ecosystem dominated by e-banking services, including internet banking, mobile apps, ATMs, and UPI integrations.

Comparative studies show that while private sector banks in India lead in technology, user-friendly interfaces, and quick service, public sector banks are strengthening their e-banking,, particularly in security and rural reach. Both sectors show high customer satisfaction with mobile banking, but private banks generally have better overall digital performance ratings. This comparative study analyzes e-banking offerings between public sector banks (e.g., State Bank of India, Bank of Baroda) and private sector banks (e.g., HDFC Bank, ICICI Bank), focusing on key dimensions such as service quality, technological innovation, customer satisfaction, adoption rates, efficiency, and accessibility. Drawing from primary data via customer questionnaires and secondary sources like RBI reports, bank websites, and journals, the research reveals that private sector banks generally outperform public sector counterparts in user-friendly interfaces, faster transaction speeds, advanced features, and higher customer satisfaction levels, attributed to greater investments in digital infrastructure and customer-centric innovations. In contrast, public sector banks excel in extensive rural outreach and financial inclusion but lag in app reliability, responsiveness, and service variety, though they are progressively enhancing digital capabilities amid India's push toward a cashless economy.

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