

Role of digital banking after UPI adoption

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Abstract

This analysis highlights how UPI has acted as a catalyst in accelerating the adoption of digital banking services by enhancing speed, accessibility, and reliability of financial transactions. It further examines how features such as 24/7 availability, reduced transaction costs, and simplified user interfaces have significantly improved customer experience and satisfaction. Overall, the study underscores the transformative role of digital banking and UPI in reshaping customer expectations, encouraging financial inclusion, and strengthening the efficiency of India's evolving digital financial ecosystem. The analysis focuses on how specific digital features like 24/7 mobile access and real-time UPI transfers impact the overall user experience. By looking at key performance metrics alongside user feedback trends, the study examines how these digital tools contribute to financial stability and ease of use for the general public. It also looks at how a "digital-first" approach helps banks build stronger trust with their customers while staying compliant with new financial regulations. The findings show that blending UPI into the core banking experience has fundamentally made banking more accessible and less stressful for the average user. These digital improvements don't just speed up transactions; they enhance the bank's reputation and create long-term value for both the institution and the customer. Ultimately, the study suggests that focusing on digital ease is the key to driving financial inclusion and staying competitive. This research provides a practical roadmap for bank managers and policymakers aiming to balance technological growth with a truly customer-centric approach.

Keywords: Digital Banking, UPI Adoption, Customer Convenience, Fintech, Financial Inclusion, User Experience.

1. Introduction

Digital banking represents the transformation of traditional banking services into technology-driven financial solutions that enable customers to conduct transactions anytime and anywhere using internet-enabled devices. Over the past decade, India has witnessed rapid growth in digital banking adoption due to increasing smart phone penetration, improved internet connectivity, and supportive government initiatives promoting cashless transactions. The introduction of the Unified Payments Interface (UPI) has further accelerated this shift by providing a fast, secure, and cost-effective platform for real-time fund transfers. Digital banking has improved customer convenience, reduced operational costs for banks, enhanced transaction transparency, and contributed significantly to financial inclusion by extending banking services to rural and underserved populations.

1.2. Need for the Study

Despite widespread adoption, challenges such as security concerns, technological awareness gaps, and trust issues continue to influence customers' willingness to use digital banking platforms. Therefore, the study is needed to evaluate the impact of digital banking and UPI on customer satisfaction and transaction efficiency.

1.3. Influence and Statement of the Problem

The growing dependence on digital payment systems has reshaped consumer behaviour and banking operations. However, variations in usage patterns, satisfaction levels, and perceived risks raise the problem of understanding whether digital banking truly enhances customer experience and financial transaction efficiency.

1.4. Theoretical Framework

The study integrates concepts from technology adoption theories, financial inclusion perspectives, and service quality frameworks. It examines how perceived usefulness, ease of use, trust, and accessibility influence customer acceptance of digital banking and UPI, thereby linking technological advancement with behavioural and economic outcomes.

1.5. Significance of the Study

The findings will help banks, regulators, and financial institutions improve digital service delivery, strengthen security measures, and promote wider adoption of digital payment platforms.

1.6. Objectives

- To analyse the role of digital banking in financial transactions.
- To examine the growth and usage of UPI.
- To evaluate customer satisfaction with digital banking services.

1.6.1. Hypothesis

Digital banking and UPI have a significant positive impact on transaction efficiency and customer satisfaction.

1.7. Scope of the Study

The research focuses on digital banking trends, customer awareness and usage of UPI, benefits of digital payments, and their contribution to India's evolving cashless economy.

2-Review of Literature

Several researchers have examined how digital banking services enhance customer convenience and influence the adoption of digital payments. Early studies by **Narayanan (2000)** and **Sathye (2005)** highlighted that internet banking improves accessibility, reduces transaction time, and enables customers to perform financial activities anytime, thereby increasing overall convenience. Similarly, **Shaikh and Karjaluoto (2015)** found that mobile banking applications strengthen customer engagement through easy fund transfers, balance enquiries, and instant notifications, leading to improved satisfaction and continued usage.

Technology adoption frameworks have been widely used to explain digital banking behaviour. **Davis (1989)**, through the Technology Acceptance Model (TAM), identified

perceived usefulness and ease of use as key determinants influencing technology adoption. Likewise, **Venkatesh et al. (2003)** proposed the Unified Theory of Acceptance and Use of Technology (UTAUT), emphasising performance expectancy, effort expectancy, social influence, and facilitating conditions as major drivers of digital service acceptance.

In the Indian context, **Shankar and Datta (2018)** and **Sharma and Singh (2022)** observed that trust, security perception, and convenience significantly affect customers' willingness to adopt mobile payment systems. Further, **Gupta and Arora (2020)** found that awareness, ease of use, and perceived usefulness are major factors contributing to the rapid adoption of Unified Payments Interface (UPI), which has simplified real-time fund transfers and enhanced payment efficiency.

Studies focusing on fintech and financial inclusion, such as **Kapoor (2021)** and **Abouraia and Al Morsey (2020)**, indicate that digital financial services reduce transaction costs, increase speed, and provide affordable access to banking services, particularly in rural and underserved areas. Moreover, service quality research by **Kaur and Arora (2022)** highlights that reliability, responsiveness, and secure interfaces improve customer trust and satisfaction in digital financial platforms.

Overall, the literature confirms that digital banking services and UPI adoption have significantly enhanced customer convenience and transaction efficiency, although challenges related to digital literacy, security concerns, and infrastructure disparities continue to influence user experience and adoption levels.

3- Research methodology

3.1 Overview

This study examines the growth and financial performance of digital banking services along with trends in Unified Payments Interface (UPI) transactions. The research methodology provides a structured approach to analyse financial trends and understand the impact of digital banking adoption on key financial performance indicators.

3.2 Research Design

The study adopts a descriptive and analytical research design. The descriptive approach is used to analyse historical trends in digital banking growth and UPI transaction volume, while the analytical approach evaluates financial performance using statistical tools such as trend analysis and ratio analysis. The research also examines changes in financial indicators including capital, profitability, liquidity, and operational efficiency.

3.3 Nature of Data

The research is based entirely on secondary data, enabling the examination of long-term financial patterns without conducting primary surveys or interviews. Secondary data ensures empirical reliability and supports systematic financial evaluation.

3.4 Sources of Data

Data has been collected from annual reports, financial institution publications, regulatory reports, UPI statistics, and publicly available online databases, ensuring accuracy and credibility for analysis.

3.5 Study Duration

The study covers the period 2020–2025 (six years) to capture the growth phase of digital banking and UPI and to identify long-term financial trends.

3.6 Tools and Techniques Used for Analysis

Trend Analysis: Applied to variables such as capital, net profit, current assets, current liabilities, EBIT, and shareholders' equity to assess performance movement over time.

Ratio Analysis: Includes current ratio, quick ratio, gross profit ratio, net profit ratio, return on capital employed, inventory turnover ratio, debtors turnover ratio, and debt-equity ratio to evaluate financial stability, liquidity, profitability, and efficiency.

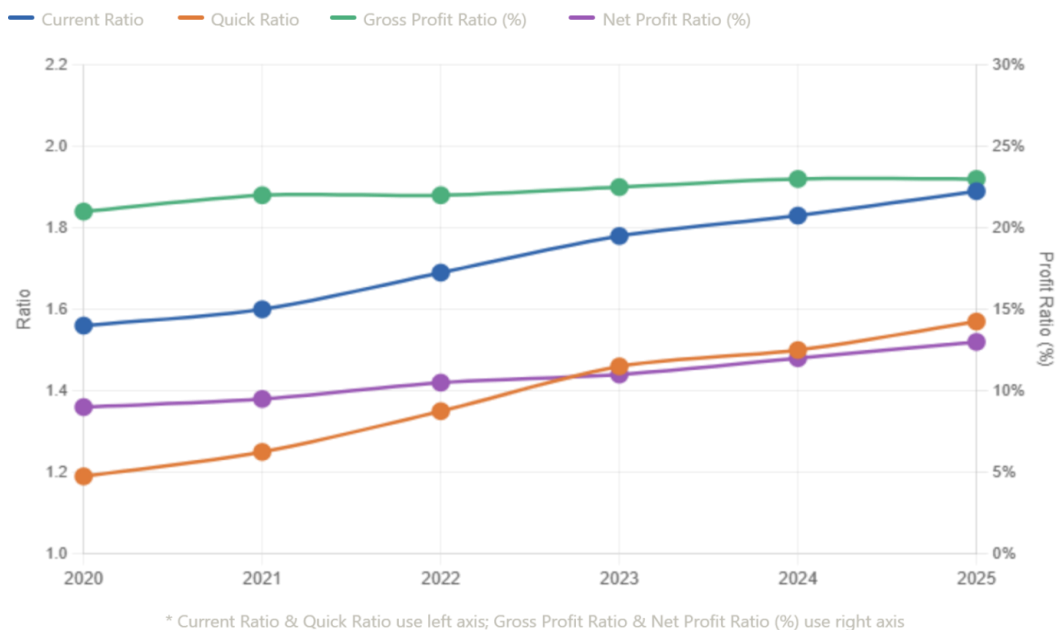
3.7 Purpose of Study

To analyse financial growth trends, assess performance through ratio analysis, and evaluate the impact of digital banking and UPI adoption on profitability, liquidity, and operational efficiency.

3.8 Study Limitations

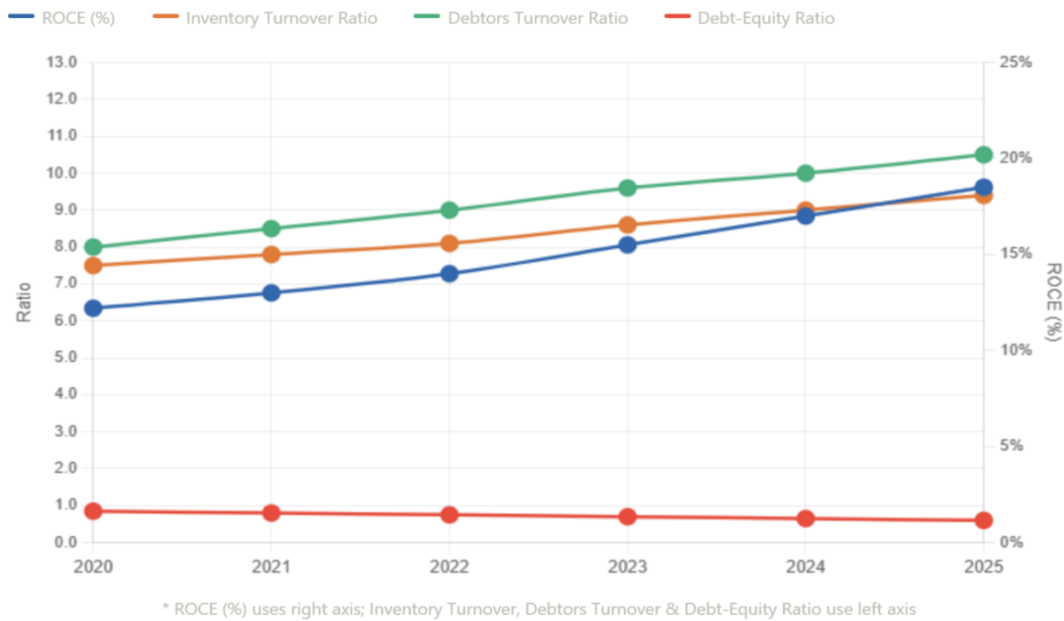
Limitations include reliance on secondary data, restricted study period (2020–2025), and financial indicators that may not represent the entire banking sector.

4-Data analysis



Graph 4.1 Current ratio ,Quick ratio, Gross profit ratio Net profit ratio

The graph shows a steady increase in the Current Ratio, Quick Ratio, Gross Profit Ratio, and Net Profit Ratio from 2020 to 2025. This indicates improvement in the bank's liquidity, financial stability, and profitability over the years. Overall, the trend suggests that digital banking and UPI transactions have positively impacted the bank's financial performance and operational efficiency.



Graph 4.2 ROCE, Inventory Turnover Ratio, Debtors Turnover Ratio, Debt Equity

The graph shows a consistent increase in ROCE, Inventory Turnover Ratio, and Debtors Turnover Ratio from 2020 to 2025, indicating improved efficiency and profitability in banking operations. At the same time, the Debt-Equity Ratio remains stable at a low level, which reflects sound financial management and lower dependence on external debt. Overall, the trend highlights the positive impact of digital banking on operational performance and financial strength.

5. Conclusion

5.1 Major Findings

The study confirms that digital banking services, supported by the rapid adoption of Unified Payments Interface (UPI), have significantly enhanced customer convenience, transaction efficiency, and financial performance. Liquidity indicators such as current ratio and quick ratio showed consistent improvement during the study period, indicating stronger short-term solvency and improved cash management due to real-time digital transactions. Profitability

ratios also demonstrated upward trends, reflecting operational cost efficiency and increased financial returns resulting from technology-driven banking processes.

These findings align with earlier studies by **Narayanan (2000)** and **Sathye (2005)**, who observed that digital banking enhances accessibility and reduces transaction time. Similarly, **Shaikh and Karjaluoto (2015)** highlighted that mobile banking improves customer engagement and satisfaction. The theoretical foundations proposed by **Davis (1989)** through the Technology Acceptance Model and **Venkatesh et al. (2003)** through UTAUT are validated, as perceived usefulness, ease of use, and facilitating conditions contributed to increased adoption. In the Indian context, studies by **Shankar and Datta (2018)** and **Sharma and Singh (2022)** also support the finding that trust and convenience play a vital role in digital payment acceptance.

Furthermore, improved turnover ratios and higher Return on Capital Employed indicate better utilisation of financial resources and faster receivable collection due to digital payment systems. The declining debt-equity ratio suggests increased financial stability and reduced reliance on external borrowing.

5.2 Suggestions

For Government and Policymakers

- Strengthen digital infrastructure and high-speed internet access, especially in rural and semi-urban areas.
- Promote nationwide digital literacy and cyber security awareness programmes.
- Introduce regulatory frameworks ensuring data protection and fraud prevention to build customer trust.

For Banks and Financial Institutions

- Invest in user-friendly digital platforms and AI-driven customer support systems.
- Enhance transaction security mechanisms and real-time grievance redressal services.
- Use data analytics to personalize services and improve customer experience.

For Users / Readers

- Adopt secure digital transaction practices such as multi-factor authentication.
- Increase awareness about fraud prevention and responsible digital financial behavior.
- Utilise digital banking tools for better financial planning and convenience.

5.3 Limitations of the Study

The study is based entirely on secondary data and financial indicators, which may not fully capture behavioral aspects of customer satisfaction. The research period (2020–2025) represents a specific growth phase of digital banking and may not reflect long-term cyclical trends. Additionally, findings may not be generalized across all banking institutions due to differences in technological adoption and operational scale.

5.4 Overall Conclusion

The research concludes that digital banking services integrated with UPI have played a transformative role in improving customer convenience, financial efficiency, and institutional performance. Faster transactions, improved liquidity management, higher profitability, and better capital utilisation highlight the positive impact of digital financial technologies. While challenges such as digital literacy gaps and security concerns remain, continued technological innovation and supportive policy initiatives will further strengthen financial inclusion and sustainability in India's evolving digital banking ecosystem

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