



Managerial Dynamics Shaping the Adoption of Technology-Driven Banking and Deposit Services in India

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Abstract – The current paper intends to provide a comprehensive analysis of managerial dynamics in the adoption of technology-driven banking and deposit services in India. It includes an examination of the interplay of leadership capabilities, organizational readiness, and strategic decision-making. Through the meticulous examination of recent empirical research from 2021 to 2026, the current study aims to investigate the managerial dynamics in the adoption of technology-driven banking and deposit services in India. A Managerial-Technological Adoption Framework (MTAF) is suggested, in which strategic vision, operational execution, workforce readiness, and risk governance are distinguished. A significant capability gap in terms of leadership capability is revealed, where 27% of BFSI organizations feel prepared for AI-driven transformation, though 83% prioritize digital transformation. There has been a tremendous growth in the digital payments ecosystem, where transactions have grown nearly eleven-fold, and 57% prefer using UPI over cash. Banks are facing challenges in terms of legacy core banking technology, where they are suffering from technological debt. There is limited adoption of Account Aggregator due to fragmented implementation and user consent. The comparative evaluation of the four analytical dimensions of strategic leadership, workforce capability, technology infrastructure, and customer adoption indicates that for successful digital transformation, there needs to be a concomitant managerial focus on people, platforms, and processes. This, the findings indicate, for bridging India's 'Digital Divide' requires a managerial reorientation.

Keyword: Managerial dynamics, digital banking, technology adoption, financial inclusion, leadership capabilities, UPI, core banking systems, account aggregator, India

I. INTRODUCTION

The Indian banking system is at an important stage in its digital evolution process. Digital transactions between 2021 and 2025 rose almost eleven times, and the proportion of UPI transactions rose to 80 percent of total digital transactions [1]. The number of UPI QR code deployment rose from 9.3 crore to 65.8 crore, and the number of banks operating on the UPI platform rose from 216 to 661 [2].

However, underlying these high rates of growth are some complicated facts. Banks are dealing with an outdated core banking system that is unable to handle current technological levels [3]. There are leadership and skill deficiencies in the effective digital transformation process, where only 27 percent of firms are equipped to handle AI-driven transformation, despite 78 percent of firms considering generative AI [5]. The Account Aggregator system, intended to revolutionize data sharing, is still in an underutilized state due to fragmented implementation and complicated user experiences [4].

The apparent paradox of technological infrastructure advancing faster while organizational capabilities are still struggling to catch up underscores the importance of managerial dynamics. Technology adoption by itself does not bring banking transformation; rather, it is the ability of managers to conceptualize, implement, and sustain technology adoption. Understanding these dimensions

related to managerial capabilities is critical to understanding the evolution of digital banking in India.

This paper attempts to analyze the managerial dynamics related to the adoption of technology by banks in India. Using a multi-dimensional approach to analyze the recent trends related to the adoption of technology by banks in India, based on recent trends related to 2021-2026, this paper attempts to answer a number of critical questions related to this issue.

The rest of the paper is organized as follows. Section 2 describes the literature survey on research related to the adoption of digital banking. Section 3 describes the proposed methodology for the Managerial-Technological Adoption Framework. Section 4 describes the analysis and discussion, where four figures and one table are included. Section 5 concludes the paper.

II. LITERATURE SURVEY

The literature on technology adoption in Indian banking has grown exponentially, covering various aspects such as leadership capabilities, workforce readiness, infrastructure limitations, and customer adoption.

Leadership and Strategic Vision

The Knolskape BFSI Industry Report 2025 highlights the need for better leadership capabilities in India's financial industry. While 93% of financial institutions in India consider data a "mission-critical" aspect, and 83%



consider digital transformation a top priority, only 31% of these organizations believe that their workforce is prepared to achieve this vision. Developing leadership capabilities has emerged as a significant issue for Indian financial institutions, with 86.7% of organizations acknowledging the need for better leadership, though few have implemented programs that are specifically designed for AI-driven transformation [6].

The report highlights three structural limitations that hinder financial institutions in India from achieving digital transformation. These limitations are "outdated talent strategies, poor leadership alignment, and inadequate learning infrastructure." Rajiv Jayaraman, the Founder and CEO of Knolskape, states that "digital transformation demands visionary leadership and a culture of continuous learning. Almost half of India's BFSI industry workforce will need reskilling in the near future."

Workforce Readiness and Skill Gaps

This skill gap does not only include the leaders; it has to be addressed across the entire workforce. Only 27% of firms are completely ready to embrace AI-powered technologies, yet they are very intent on it and have given it significant data focus [7]. The confidence level to use analytics to drive business outcomes remains at 33%, which means that if there is only focus on developing technology, it will not yield significant results.

According to the report, it is important to urgently invest in AI-powered leadership development, data literacy, and simulation learning methodologies. It has to be noted that if BFSI firms do not focus on developing the people along with the platforms, they will not be able to leverage the benefits of digital transformation [8].

Technology Infrastructure and Legacy Constraints

The "ET Edge Insights" section states, "Digital dreams, legacy nightmares." This is the reality faced by Indian banks. Their CBS, designed for traditional banking, is facing the brunt of the current digital transactional volumes. With the current system, every UPI transaction, whether big or small, is being recorded on the CBS. This is putting tremendous pressure on the system, as the volumes of transactions are much higher than they were designed to handle [9].

The ripple effect of a single transaction causes the peripheral banking systems to go down, and there are many cases of downtime. There were 31 cases of downtime of the payment gateway in May 2024, for over 47 hours. This CBS, designed to handle secured loans of high ticket size, is being overwhelmed by the flow of instant, sachet-sized personal loans, though of low value but very high volume.

Digital Payments Ecosystem Expansion

The Department of Financial Services published a thorough analysis on the socio-economic impact in February 2026, based on a survey conducted with 10,378 respondents across 15 states. Some key findings are:

Currently, 57% of transactions are through UPI, while only 38% are through cash. Additionally, 65% of UPI users use digital transactions more than once a day. Lastly, 90% of users are more confident about digital transactions after experiencing UPI and RuPay cards [10].

The adoption rate for merchants has reached near-universal levels, with 94% of small merchants reporting UPI adoption. Among these, 72% are satisfied with digital payments, citing faster transactions, better records, and operational ease. Additionally, 57% reported an increase in sales due to digital adoption.

Account Aggregator Ecosystem Challenges

However, despite its promise, there are a number of adoption hurdles for the Account Aggregator framework. Industry analysis suggests that there are less than 200 live fintechs with fully functional AA APIs. The main issues are complex user experiences for consent management, incomplete data availability, and a lack of use cases beyond lending.

PwC India's Fintech Design Audit 2026 revealed that 68% of apps using AA see users drop off before giving their consent. The number of technical terms on an average user's consent screen is 10+ [7]. The time it takes to retrieve data is 14-18 seconds, which is too high for an instant credit requirement.

AI Adoption and Data Governance

According to a global study quoted by TechCircle, though 97% of financial organizations have at least one AI or machine learning use case, only 26% have adopted it enterprise-wide. Close to 48% are in the state of experimentation and integration. Data silos have come out as the biggest hindrance, affecting 97% of financial organizations.

In India, 84% of BFSI organizations have adopted AI, with 67% experimenting with generative AI in fraud detection, compliance, and customer analytics. Less than 20% of financial organizations have adopted AI for business performance, though [6].

Digital-First vs. Digital-Only Debate

Srinath Sridharan writes that the requirement of a licence for only digital banks may be unnecessary. Most banks already operate as digital banks from the point of view of the customer. However, the lack of success in delivering the digital customer experience is a sign that the transformation is not yet complete. Old processes that were



not re-engineered to become part of the digital bank may become barriers rather than bridges.

The key issue that any bank faces is the establishment of a good liability base, i.e., low-cost deposits. A licence does not automatically bring customers [5].

Synthesis and Research Gaps

The literature review reveals that consistent themes have been identified while at the same time pointing out the gaps that still exist. For example, the literature reveals that leadership capability gaps hinder digital transformation, workforce readiness is lagging behind technology investment, legacy infrastructure is putting pressure on operations, and customer adoption is moving faster than institutional adaptation.

On the research gaps, the literature reveals that little is known about the role of managerial decision-making as a mediator between technology investment and outcomes, the lack of research into bank transformation challenges in the public sector, and the need to research the longitudinal development of managerial capability.

III. METHODOLOGY

Based on the literature synthesis, the current paper proposes the Managerial-Technological Adoption Framework (MTAF) for the analysis of managerial dynamics of technology adoption in Indian banking.

Theoretical Foundations

The proposed Managerial-Technological Adoption Framework (MTAF) rests on three theoretical pillars. First, the strategic leadership theory provides the foundation for the role of the top management's vision and commitment to the process of organizational transformation.

Second, the organizational readiness theory acknowledges the importance of the workforce, culture, and structure to the success of the technology adoption process.

Finally, the technology, organization, and environment framework provides a holistic perspective by considering the internal factors of the organization and the external factors of the technology and the environment.

Framework Components

The Managerial-Technological Adoption Framework comprises four analytical layers.

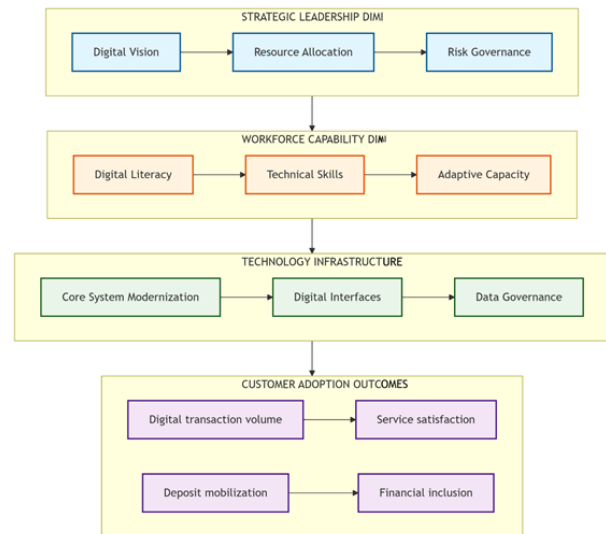


Figure 1: Managerial-Technological Adoption Framework (MTAF)

Analytical Dimensions

The framework facilitates evaluation on four key dimensions:

- Strategic Leadership: Digital vision and strategy, sufficiency of resources, strength of risk governance, and effectiveness of change management
- Workforce Capability: Digital literacy, technical skillset, ability to learn and adapt, and leadership development
- Technology Infrastructure: Modernization of core systems, quality of digital interfaces, data governance, and cybersecurity
- Customer Adoption: Transactional volume, satisfaction with services, deposit growth, and inclusion

IV. RESULT ANALYSIS AND DISCUSSION

This section presents analytical findings regarding managerial dynamics in Indian banking technology adoption, organized around four illustrative figures and a comparative evaluation table.

Leadership Capability Gap

The disconnect between digital ambition and organizational readiness reveals critical leadership challenges.

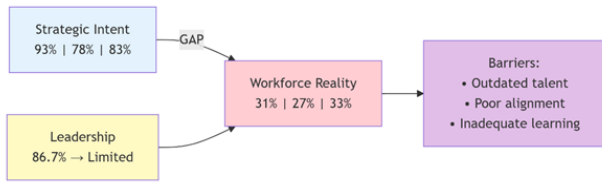


Figure 2: Leadership and Workforce Readiness Gaps

However, Figure 2 also indicates a fundamental disconnect between the over 80% of firms focusing on digital transformation and the less than a third of firms that believe their people can deliver. This, therefore, indicates a significant failure of managerial acumen, where firms invest in technology but fail to invest in their people as well. While 86.7% of firms recognize the importance of effective leadership development, very few firms have implemented effective programs. This indicates a significant disconnect between awareness and implementation. As the report indicates, a lack of effective talent strategy and learning infrastructure acts as a structural impediment, which technology investments cannot solve.

Digital Payments Ecosystem Transformation

While there have been significant challenges for India's internal business environment, the digital payments ecosystem has registered significant scale.

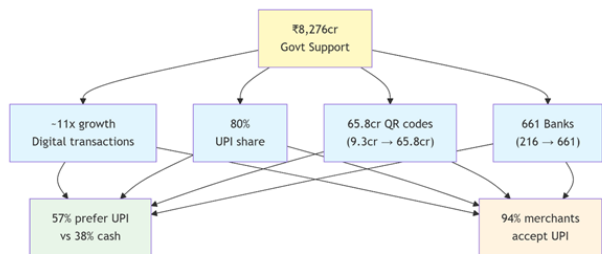


Figure 3: Digital Payments Growth Metrics (2021-2025)

Figure 3 depicts the tremendous success that India's digital public infrastructure has recorded. The ten-fold increase in transactions and 80% share of the UPI segment point to systemic change. Crucially, the 90% of the population reporting that they have more trust after experiencing the service point to the importance of experience leading to trust—a factor that managers should be aware of.

The high level of adoption among small merchants, at 94%, is a significant factor. For bank managers, this is both a challenge and an opportunity: the digital payment infrastructure is already developed, but the question is whether it is part of the overall service package.

Legacy Infrastructure Constraints

While customer-facing adoption soars, underlying banking infrastructure strains under pressure.

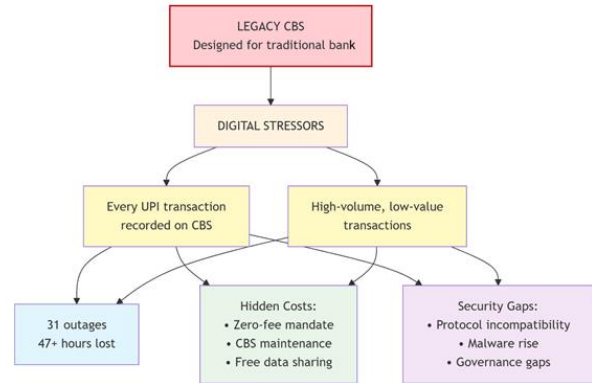


Figure 4: Core Banking System Challenges

Figure 4 illustrates the "digital dreams, legacy nightmares" dilemma for bank managers. On one hand, the very infrastructure that enables the success of UPI also makes it operationally vulnerable. Every small transaction that happens needs to be recorded, and this adds pressure, which legacy infrastructure may not be able to cope with. For managers, this is a tricky balancing act. On one side, they have to ensure that current operations continue, and on the other, they have to ensure that new technology is adopted. The 31 outages in a single month by a payment gateway show that the costs of inaction are real.

Account Aggregator Adoption Barriers

The Account Aggregator ecosystem, designed to revolutionize data sharing, faces significant adoption hurdles.

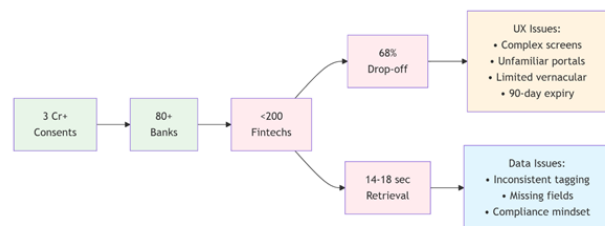


Figure 5: Account Aggregator Ecosystem Challenges

As depicted in Figure 5, it shows how technological infrastructure can fail to work properly despite proper design if management does not pay attention to user experience. The 68% drop-off rate before consent implies that friction-filled designs are not conducive for adoption. The idea that "consent isn't compliance paperwork—it's part of the product experience" captures an important



management idea. When management views data-sharing frameworks as paperwork, it affects adoption.

the user experience, where managerial attention to detail is crucial.

Comparative Analysis of Managerial Dynamics

Table 1 presents a comprehensive comparative analysis of managerial dynamics shaping technology adoption across four analytical dimensions.

Table 1: Comparative Analysis of Managerial Dynamics in Banking Technology Adoption

Dimension	Key Metrics	Managerial Challenges	Success Factors	Evidence Base
Strategic Leadership	83% prioritize digital; 27% feel prepared	Vision-reality gap; leadership development deficit	Board-level commitment; dedicated transformation budgets; clear accountability	Knolskape Report 2025
Workforce Capability	31% confident in workforce; 33% analytics confident	Skill gaps; reskilling needs; talent retention	Continuous learning culture; AI-powered training; simulation-based learning	Knolskape Report 2025
Technology Infrastructure	31 outages (May 2024); 47+ hours downtime	Legacy CBS constraints; UPI revenue model; cybersecurity risks	Hybrid cloud architectures; API-based modernization; phased migration	ET Edge Insights 2025
Customer Adoption	57% UPI preference; 94% merchant acceptance; 68% AA drop-off	Balancing innovation with stability; UX design; trust building	Seamless interfaces; vernacular options; grievance redress	DFS Report 2026; AA Analysis

Analysis of Comparative Dimensions:

Finally, Strategic Leadership shows the largest gap in intentions and readiness. Although 83% of firms are prioritizing digital transformation, only 27% of them are ready for AI-driven transformation. This shows that the development of managerial capability is not keeping pace with technological aspirations.

The Workforce Capability metrics show that only 31% of firms are confident in their workforce, and only 33% are confident in using analytics. This shows that the limitation of human capital may be the most binding constraint on digital transformation than the limitation of technology itself.

The Technology Infrastructure metrics show the problem of "running the business while building the new." Although banks are able to run the business on old infrastructure, they need to upgrade the infrastructure to meet the demands of digital transformation. The fact that there were 31 outages in a single month shows the cost of delayed infrastructure modernization.

Finally, the Customer Adoption metrics show a paradox. Although UPI adoption is high (57% preference), there is a huge drop-off in AA adoption (68%). The difference is in

V. CONCLUSION

This paper has offered a holistic analysis of managerial dynamics in technology-driven banking and deposit services in India, synthesizing recent studies to develop a Managerial Technological Adoption Framework. The results indicate that technology infrastructure is necessary but insufficient in the absence of corresponding managerial competence.

Several important conclusions emerge from this analysis. First, a gap in management competence blocks digital transformation. While 83% of firms prioritize digital projects, only 27% are ready for AI-driven transformation. The 86.7% of those acknowledging the importance of developing leadership skills without effective implementation represent a critical failure to execute.

Second, workforce readiness lags behind technology investment. With only 31% confident in workforce readiness and 33% confident in analytics utilization, banks are blocked by a human capital constraint that technology investment cannot surmount.

Third, legacy infrastructure entails operational vulnerability. The 31 payment gateway outages within a single month underscore the costs of delayed modernization. Managers face the daunting task of navigating the complex transition from legacy CBS to modern architectures.

Fourth, customer adoption success hinges on the design of the user experience. The disparity between UPI's 57% preference and AA's 68% drop-off rate underscores the imperative that technological feasibility, without a corresponding emphasis on seamless experience, begets limited adoption.

Fifth, India's digital payments revolution has achieved remarkable traction with eleven-fold transaction growth, 80% UPI share, and 94% merchant acceptance. However, this success begets new managerial imperatives. Banks must exploit this infrastructure while managing its operational demands.

Sixth, digital-first thinking precedes digital-only licensing. As Sridharan argues, the imperative is to make all banks digitally capable, rather than to develop new licence categories that might distract from fundamental transformation.

There are a number of implications for practice. First, for bank executives, this review reinforces the need to develop technology investments alongside leadership and workforce skill upgrades. Second, for policymakers, this



review reinforces the need to invest in digital infrastructure alongside institutional capability building. Third, for technology providers, solutions that make legacy modernization easier and improve the user experience will be welcomed by banks.

The limitations of this review include the dominance of industry reports over academic research, the limited number of public sector banks included, and the dynamic nature of the field that may be growing faster than academic research.

The future research directions include longitudinal research on the development of managerial capabilities, comparative research on public vs. private sector transformation, and research on the impact of new technologies such as AI and blockchain on managerial capabilities.

As India's banking sector continues to move through its transformative decade, it is clear that the managerial dynamics discussed in this paper will ultimately determine whether technology's potential is realized in reality. The infrastructure is in place; it is now in the hands of managers to take their organizations through this digital divide.

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