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Original Article

THE EVOLUTION OF TRANSACTIONAL FINANCE: AUTOMATION, REAL-TIME PAYMENTS, AND STRATEGIC TRANSFORMATION (2018 – 2025)

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ABSTRACT

This paper explores how transactional finance has evolved between 2018 and 2025, focusing on automation and real-time connectivity. These developments have altered traditional accounts payable, accounts receivable, and liquidity-management processes. Using descriptive and comparative methods based on secondary research, the study highlights the key drivers and challenges behind this shift. Verified statistics indicate faster processing, better cash-flow visibility, and changing responsibilities within finance teams. India's government-led approach is compared with global models to show how different ecosystems can reach similar outcomes. The paper concludes with practical recommendations for organisations looking to integrate automation and real-time payment systems responsibly.

Keywords: Transactional Finance, Automation, Real-Time Payments, RPA, UPI, Working Capital, Digital Finance

Executive Summary

Over the last few years, especially between 2018 and 2025, transactional finance has changed more than most people expected. What used to be a routine back-office activity has become something that directly influences how organisations manage cash, make decisions, and stay competitive. This paper looks at how automation tools and real-time payment systems have reshaped everyday finance activities and what that shift means in practice.

Based on trusted secondary data, the study shows that automation can lower costs, reduce processing time, and make financial information more transparent and easier to act on. India's examples—like UPI and GST e-invoicing help illustrate how large-scale digital systems can speed up this transformation. Similar movements in Europe and the United States suggest that the trend is global.

Overall, the findings suggest that transactional finance can move beyond simple efficiency goals and start supporting business strategy. However, this transition depends on clean data, strong governance, and continuous skill development within finance teams.

INTRODUCTION

Transactional finance includes the day-to-day financial activities that keep an organisation running such as recording payments, receiving funds, and reconciling accounts. Traditionally, these tasks were seen as routine and administrative. With the rise of digital

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technologies and regulatory reforms, they now play a more meaningful role by supporting liquidity, reducing risk, and improving how quickly companies can respond to business needs.

Between 2018 and 2025, organisations began adopting tools like robotic process automation (RPA), artificial intelligence (AI), optical-character recognition (OCR), and integrated ERP systems. At the same time, new real-time payment networks such as India's UPI, Europe's SEPA Instant, and the US FedNow system started to change expectations around speed and transparency in financial transactions. Taken together, these developments have pushed transactional finance into a more strategic space than before.

STATEMENT OF THE PROBLEM

Even though technology has advanced rapidly, many organisations still depend on partly manual financial processes. Paper invoices, disconnected systems, and multiple banking platforms often slow down routine tasks and create errors or compliance risks. These delays also affect how well companies manage their cash and respond to business needs.

So, the central problem explored in this study is:

How can organisations use automation and real-time payment systems not just to improve efficiency, but to turn transactional finance into a function that supports overall business performance and strategy?

OBJECTIVES OF THE STUDY

1) To trace the evolution of transactional-finance processes between 2018 and 2025.
2) To analyse the role of automation and real-time payment systems in enhancing efficiency and liquidity.
3) To identify barriers- technological,regulatory and human that impede transformation.
4) To compare Indian progress with developments in other countries.
5) To recommend a structured roadmap for sustainable digital-finance adoption.

REVIEW OF LITERATURE

Existing research consistently shows a strong connection between automation, clean data, and improved financial operations.

Studies by Oracle (2024) describe finance automation as the use of ERP systems, RPA, and AI to reduce manual steps in invoice capture and approval. Deloitte (2023) reports that organisations can lower invoice-processing costs by 25–35 percent after automation.

Work by the BIS (2023) and RBI (2024) highlights how real-time payment systems make settlements immediate, helping companies forecast cash more accurately and reduce delays. The adoption of ISO 20022 standards also supports smoother reconciliation through richer data.

Research from HFS (2024) points out that many finance leaders now expect their teams to move beyond basic transaction processing and contribute to broader decision-making. At the same time, India's UPI and GST e-invoicing platforms show how large-scale digital systems can handle extremely high transaction volumes crossing 12 billion per month (NPCI 2024). Similar efforts in Europe and the US, such as SEPA Instant and FedNow, confirm that instant payments are gaining global traction.

Finally, ACCA (2020) notes that the success of automation depends heavily on employee skills and process redesign, not just technology. This suggests that transformation is as much about people as it is about systems.

Overall, the literature supports the view that automation and real-time payments lead to measurable performance improvements and gradually reshape the role of finance teams.

RESEARCH METHODOLOGY

This research uses a descriptive and qualitative approach based entirely on secondary data. Information was gathered from peer-reviewed journals, regulatory publications (such as RBI, BIS, and EPC reports), consulting studies (from Deloitte, EY, PwC, McKinsey), and verified vendor sources like Oracle and SAP.

A comparative thematic analysis was used to identify the main drivers, challenges, and outcomes of transactional-finance transformation. Multiple sources were cross-checked to ensure reliability. The scope focuses on corporate-finance operations across industries between 2018 and 2025, with India as the primary reference point and global parallels included where relevant.

LIMITATIONS OF STUDY

Despite rigorous analysis, this study is subject to certain limitations that should be acknowledged for contextual accuracy:

Although this study is based on credible sources, there are a few limitations worth noting. First, the research relies completely on secondary data published between 2018 and 2025. Since different countries and institutions don't always follow the same reporting standards, some comparisons may not be perfectly aligned.

Second, the speed of automation and real-time payment adoption varies widely across regions, industries, and financial institutions. This means that certain findings may apply to digitally mature markets but may not reflect the reality in slower-moving environments.

Third, the study focuses only on the developments within the stated time period. Future advances such as wider use of blockchain, AI-powered analytics, or new regulatory changes could alter the current trends.

Some of the qualitative insights are based on expert opinions, which can naturally involve some interpretation. While multiple sources were cross-checked to minimise bias, it cannot be removed entirely.

Lastly, due to time and resource constraints, no primary data such as surveys was collected. As a result, the study may not capture deeper behavioural or user-level perspectives.

CONCEPTUAL FRAMEWORK

The transformation of transactional finance can be understood through three connected elements: drivers, barriers, and outcomes.

- Drivers include technologies such as automation tools (RPA, AI, OCR), real-time payment systems like UPI and SEPA Instant, and data dashboards that improve visibility.
- Barriers involve legacy systems, fragmented workflows, regulatory complexities, and gaps in employee skills or change readiness.
- Outcomes reflect the results of transformation—faster processing, fewer errors, better liquidity visibility, and a shift toward more strategic financial roles.

Figure 1

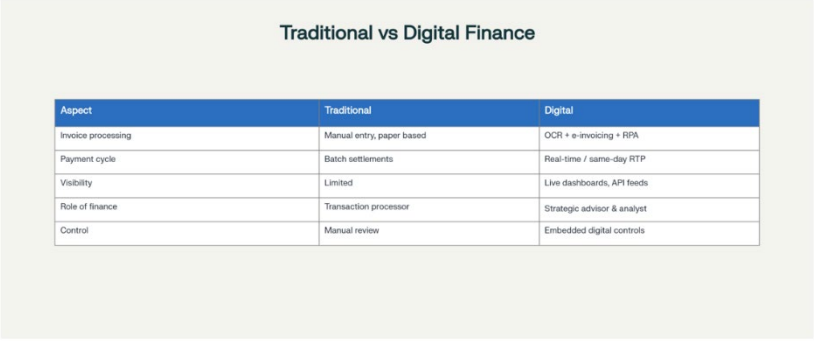


Figure 1 Traditional vs Digital Transactional Finance - Comparison of key Operational Features and Control Mechanisms

ANALYSIS AND FINDINGS

AUTOMATION IN ACCOUNTS PAYABLE (AP) AND ACCOUNTS RECEIVABLE (AR)

Automation has become a central theme in modern transactional finance. By combining tools like OCR and RPA with ERP systems, companies can capture invoice data automatically, route approvals digitally, and update financial records without manual entry.

Industry studies from Oracle (2024) and Deloitte (2023) show several common outcomes:

- Invoice and receipt processing becomes noticeably faster, often improving by 30–45%.
- Errors and duplicates reduce significantly because fewer manual steps are involved.
- The cost per transaction drops, mainly due to reduced labour effort.
- Built-in validation rules help prevent mistakes instead of detecting them after posting.

Overall, automation helps shift finance teams from routine checking to more proactive control. This reduces reconciliation work and creates a smoother audit process.

Figure 2

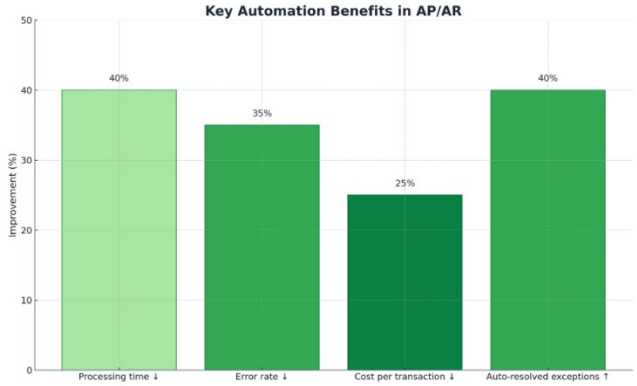


Figure 2 Key Automation Benefits in AP (Account payable) and AR (Account receivable) Processes (2018–2025)
Source Compiled from Deloitte (2023), Oracle (2024)

REAL-TIME PAYMENTS (RTP) AND WORKING-CAPITAL EFFICIENCY

Real-time payment systems have had a direct impact on how organisations manage cash. Research from BIS (2023) and RBI (2024) indicates that instant settlement allows companies to see their cash positions more frequently—even within the same day—making forecasting more accurate.

Companies that adopt real-time payment systems often report:

- Faster collections, reflected in lower Days Sales Outstanding (DSO).
- More precise timing of outgoing payments, improving Days Payable Outstanding (DPO).
- A shift from weekly or monthly liquidity updates to near-continuous visibility.

These improvements help strengthen working capital and reduce reliance on short-term borrowing. India's UPI platform, which handles billions of transactions monthly, shows how real-time payments can scale quickly. Europe's SEPA Instant and the US FedNow system are moving in the same direction, although corporate adoption has been slower.

Figure 3

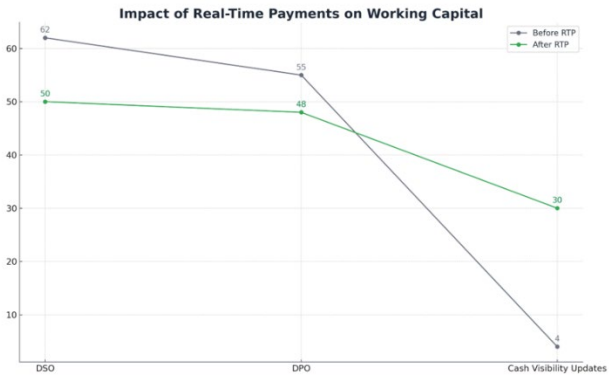


Figure 3 Impact of Real-Time Payments on Working-Capital Efficiency (Before vs After Adoption)
Source RBI (2024), BIS (2023).

EVOLUTION OF FINANCE ROLES AND COMPETENCIES

Automation is changing the nature of finance work rather than replacing finance teams altogether. Tasks that were once heavily manual are now supported by technology, allowing employees to spend more time on analysis and problem-solving.

New roles are emerging, such as:

- Automation supervisors, who monitor digital workflows and ensure smooth processing.
- Finance data analysts, who interpret dashboards and trend reports.

- Risk technology specialists, who integrate compliance rules into systems.
- Business advisors, who use transactional insights to guide decision-making.

Studies like HFS (2024) suggest that a large portion of time previously spent on routine processing is now shifting toward analytical activities. This trend highlights the growing importance of training in data literacy, process mapping, and digital tools.

Figure 4

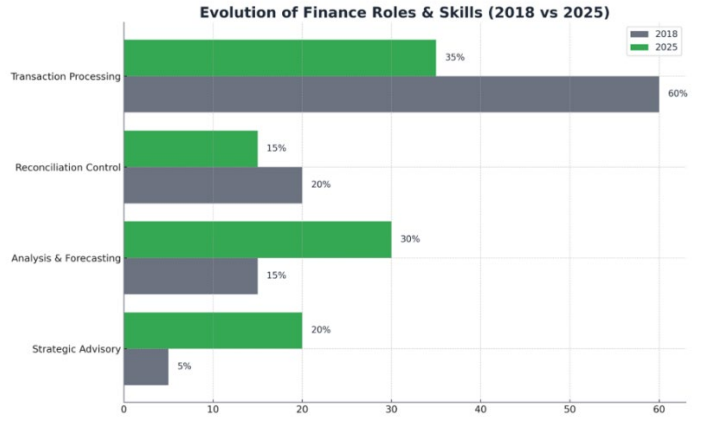


Figure 4 Evolution of Finance Roles and Skills (2018 vs 2025)
Source HFS Research (2024), ACCA (2020).

INDIA VS GLOBAL DIGITAL-FINANCE COMPARATIVE INSIGHTS

India's progress in transactional finance has largely been driven by government-led initiatives. Systems like GST e-invoicing and UPI created a structured digital environment that encouraged widespread adoption, even among smaller businesses. This approach shows how policy support and national infrastructure can speed up digital transformation.

In contrast, regions like Europe and the United States follow a more market-driven model. For example:

- SEPA Instant in Europe focuses on standardised instant payments across banks.
- FedNow in the US opened the door for real-time payments starting in 2023, but adoption has been gradual.

While India has moved faster because of its coordinated regulatory framework, Western markets benefit from competition and innovation through banks and fintechs. Ultimately, both models are heading toward similar goals real-time, data-rich financial ecosystems just through different pathways and timelines.

Figure 5

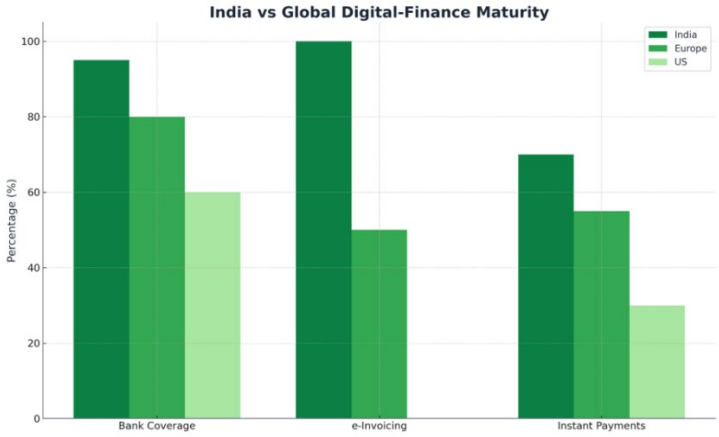


Figure 5 India vs Global Digital-Finance Maturity (2025) — Comparative adoption indicators
Source RBI (2024), BIS (2023), EPC (2023)

PERFORMANCE MEASUREMENT AND IMPACT ASSESSMENT

To understand the true impact of transformation, several performance indicators were compared before and after the adoption of automation and real-time payments. These included invoice-processing time, error rates, working-capital metrics like DSO and DPO, and cost per transaction.

The results generally show a clear improvement over 12–24 months. Organisations tend to process invoices faster, face fewer exceptions, and improve their cash cycles. Lower processing costs and better cash visibility also contribute to financial stability and improved decision-making.

In simple terms, when companies automate routine tasks and connect payments in real time, they move closer to a more efficient and financially agile operating model.

Indicator	Baseline (Pre-transformation)	Target (12 months)	Target (24 months)
Average invoice-processing time (days)	7 – 10	4	2
Exception rate (%)	8 – 10	4	2
DSO (days)	60 – 65	50	45
DPO (days)	55 – 58	50	48
Cost per transaction (₹)	100	75	60

Source compiled benchmarks from Deloitte (2023), EY (2023), RBI (2024)

Figure 6

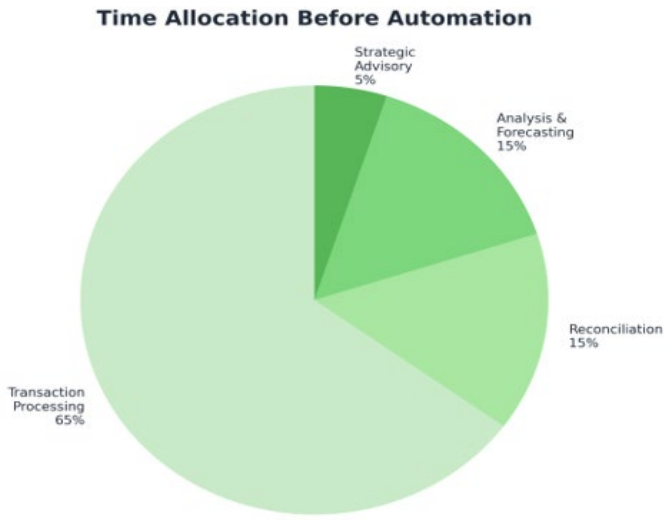
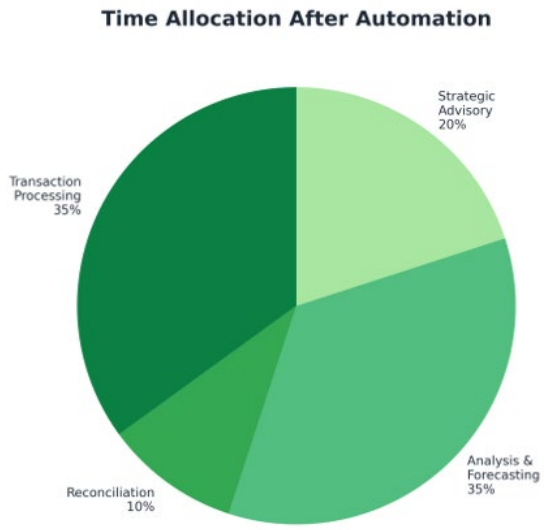


Figure 6 Time Allocation Before Automation — Finance teams spent the majority of their time on manual transaction processing and reconciliation activities, limiting focus on analytical and strategic functions

Source HFS Research (2024)



Time Allocation After Automation — With automation and intelligent workflows, finance teams dedicate a larger share of time to analysis, forecasting, and strategic advisory roles, enhancing overall value creation.

Source HFS Research (2024).

BARRIERS AND CHALLENGES

Even with promising outcomes, several challenges continue to slow down transformation:

- Legacy systems can be difficult or expensive to integrate with newer tools, leading to project delays.
- Poor data quality often causes errors in postings and reconciliation, limiting the effectiveness of automation.
- Skill gaps mean that employees may not fully understand or utilise digital tools, reducing overall benefits.
- Cybersecurity risks increase when payments become faster and more connected.
- Change resistance within teams can slow adoption, especially if employees feel uncertain about new roles.

Companies that succeed tend to focus on both technology and people—cleaning data, providing training, phasing implementation, and communicating clearly about the purpose and benefits of transformation.

MINI-CASE SNAPSHOTS

Short case examples help show how these concepts play out in real situations:

Case A – Indian Manufacturing SME

A mid-sized automotive components manufacturer relied heavily on manual invoice handling. After adopting OCR-based invoice capture and automated approvals in 2023, the company saw faster processing times, fewer exceptions, and better use of employee time. These results align with broader research showing that automation benefits are not limited to large corporations.

Case B – FMCG Distributor Using UPI

A regional distributor that previously collected payments in cash shifted to UPI-linked digital collections. This reduced DSO, improved cash availability, and lowered banking and pilferage costs. The case highlights how even small improvements in collection cycles can strengthen liquidity in high-volume sectors.

Case C – European Retailer with SEPA Instant

A large retailer centralised its accounts-payable function across multiple countries. By combining workflow automation with SEPA Instant payments, the company eliminated late-payment penalties and improved productivity. Real-time liquidity data also enabled better supplier negotiations, showing how instant payments can support broader financial strategies.

Across all three cases, common success factors included standardised data, phased rollouts, leadership involvement, and continuous training.

Figure 7

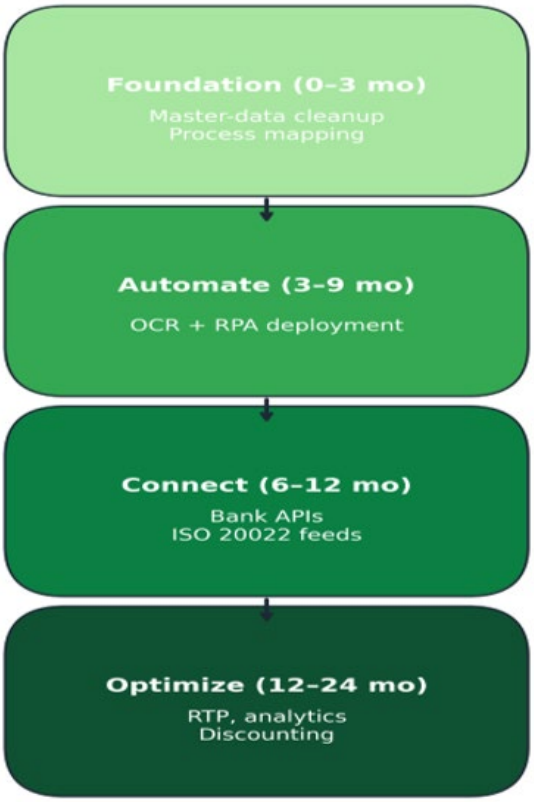


Figure 7 Transactional-Finance Transformation Roadmap — Phased approach to automation and integration.

STRATEGIC RECOMMENDATIONS

Based on the research and examples discussed, organisations aiming to strengthen their transactional-finance processes can follow a gradual, structured approach.

Phase 0 – Laying the Foundation (0–3 months)

The first step is to understand existing processes clearly. This includes mapping current workflows, cleaning vendor and customer data, and identifying baseline performance indicators such as DSO, DPO, and exception rates. Having accurate data at this stage helps set realistic goals for automation.

Phase 1 – Automating Core Processes (3–9 months)

Once the foundation is in place, companies can introduce tools like OCR and RPA for high-volume AP and AR tasks. Standardising approval steps and digitising supporting documents can reduce manual effort and improve control. Early results often include shorter cycle times and fewer processing errors.

Phase 2 – Strengthening Connectivity (6–12 months)

The next step is to connect financial systems more closely with banks and payment platforms through APIs and standardised formats like ISO 20022. Real-time dashboards can provide continuous visibility into cash positions, which helps with forecasting and reconciliation.

Phase 3 – Optimising for Value (12–24 months)

In this phase, organisations can expand into real-time payments for selected suppliers or customers and explore options like dynamic discounting. These steps support better working-capital management and create measurable financial benefits over time.

Governance and People

Successful transformation requires strong coordination. Forming a cross-functional steering committee bringing together finance, IT, and procurement can help ensure alignment. Tracking KPIs and offering training in analytics, automation supervision, and cyber-risk management also play a crucial role in sustaining progress.

Risk and Control Measures

As processes become more digital, companies should shift toward preventive controls. This includes automated validation checks, dual approvals for sensitive activities, multi-factor authentication, and periodic audits. AI-based alerts can also help flag unusual transactions more quickly.

Overall, these recommendations emphasise that technology alone is not enough governance, skills, and continuous monitoring are equally important.

CONCLUSION

The years from 2018 to 2025 represent a major turning point in transactional finance. What was once viewed as a routine back-office function has become a key driver of efficiency, transparency, and organisational agility. Technologies like RPA, OCR, and AI have reshaped accounts payable and receivable processes, making them faster and less error-prone. At the same time, real-time payment platforms such as UPI, SEPA Instant, and FedNow have accelerated financial flows and improved cash visibility.

The combined effect of automation and real-time connectivity goes beyond operational benefits. Together, they support stronger working-capital management and enable finance teams to contribute more strategically to business decisions. Evidence shows that companies adopting these tools experience meaningful reductions in cost and processing time, along with healthier liquidity positions.

India's experience demonstrates how integrated digital infrastructure and supportive regulation can speed up adoption, while global markets show that competition and innovation can also drive progress, even if at a different pace. Both paths underline the same conclusion: transactional finance is moving toward a smarter, more connected future.

However, lasting success depends on more than technology. Clean data, clear governance, and skilled teams are essential to unlocking long-term value. As organisations continue their digital journeys, finance professionals are likely to shift from manual processing roles to more analytical and advisory positions, helping bridge financial data with strategic decision-making.

In essence, transactional finance is no longer just about processing payments it is about enabling better decisions and supporting organisational growth in a rapidly changing digital environment.

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