# Digital Transformation in Banking

## Easier, Lower Risk Implementation with Process Mining

## SUMMARY

- Process mining identifies and visualizes actual business processes by applying algorithms to transactional data recorded by common banking applications.
- The discovered models can be used in digital transformation initiatives in banking to inform decisions about which processes to change, automate, eliminate, or further test.
- Testing customer migration strategies using process mining techniques can reduce the risk of poor experience and compliance violations in banking.

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# Why Process Mining Now?

Banks have much to do in redesigning their processes to meet the new realities of customer demand and behavior. Against consumer and competitive pressures, Digital transformation is daunting, fraught with risk, and expensive. The balance between customer experience, shareholder expectations, and technical realities is a delicate one that many executives will struggle to navigate this year and in years to come.

With a higher percentage of existing digital revenue than other industries, some banks are spending over 10% of yearly revenue on technology investments[1]. However, according to an Oliver Wyman and Procensus investor survey[2], only 25% of investors are confident digital transformation strategies will be effective. And, BCG put the chances of success at less than 30[3]%. Despite this, digital maturity is progressing rapidly out of necessity, putting banking leaders under pressure to deliver successful change.

See Apromore.com to find these additional resources.

The root of the problem is that mature organizations must digitize before they can become digital. Digitizing a bank goes to the very heart of how banks create and deliver value - and then turns it on its head. But, after decades of institutional evolution and regulatory intervention, delivering value today is built on thousands of process fragments, stitched together by a tangled web of legacy systems.

This makes navigating the complexity of digital transformation extraordinarily challenging for banks. Each day that is spent mulling the options seems to bring the threat of disruption from the tech giants closer and makes the capability chasm with FinTech innovators wider.

But time is running out and margins are shrinking. Progress to date has been slow and mired in compliance challenges. The introduction of new ways of working as a trigger for the transformation has not made the technical challenge of migrating from legacy products and platforms any easier.

Whether you are the Chief Digital Officer accountable for leading the transformation, a tribe lead responsible for delivery, a process owner, or risk professional: it's time to take notice of new tools and techniques to increase the probability of success. Unless you're planning a greenfield implementation with no customer migration, you will need all the help you can get. This is where process mining comes in.

## Understanding the "As-Is": Gain Your Bearings for The Journey

**Orient to your current position and "discover" what really happens**

One of the most time-consuming and critical stages of any digital transformation is understanding and documenting your current processes. Legacy systems are by definition, a representation of business requirements or technology that the business has moved beyond. Distributed across multiple departments-from bankers and the branch network, through the contact center and into multiple back-office teams- simply getting the right resources in the room to document current processes is a considerable challenge.

Add to that many years of restructuring, and the odds of understanding what is going on become increasingly negligible. Process mining provides the ability to orient to your current position and "discover" what really happens by analyzing transactional data from your existing applications. Because process mining analyzes application and system activity, it is usually faster, more comprehensive, and far more accurate than manual alternatives. With the ability to uncover all known - and more importantly unknown - process variants, process mining techniques are becoming invaluable for understanding the current flow of customers through the business, and will provide you with a clear baseline from which to work. What's more, the data-driven analytics produced will highlight areas of the process that are ripe for re-imagining.

# Re-Imagining the "To-Be": Creating Digital Futures

While the focus of the transformation may be to re-imagine the entire process, there are frequently parts of the process where current constraints may remain – particularly around controls. Early ROI can be achieved by focusing on areas that present the most significant impact on cost and contractual overheads. By analyzing the performance of the "As-Is" process, process mining can help identify areas for incremental change and provide critical input to designing the "To Be" or future process:

- Where the bottlenecks are
- Where the biggest queues and backlogs are
- How long it takes to move through parts of a process
- Which steps consume the most resources
- Where the re-work loops are
- Where the process breaks down and potentially breaches key controls

Some banks are implementing digital twins to improve understanding of how their business can increase automation and resilience amid changing conditions. A well-designed digital twin must be built on the reality of current processes. Process mining is the key enabler technology to realize this digital twin, in a cost-effective and reliable way.



# Testing

As discussed above, it's rare for a traditional process mapping workshop to identify all variants; Manual data collection workshops tend to identify the "Happy Path" and common variants, presenting a significant risk that some – and perhaps critically important – scenarios, shadow operations, and use cases will be missed.

Contrast this to the wealth of data generated each day by banking applications. This largely untapped data, can be used as input to a process mining exercise, to help identify the more infrequent variants and then inform the use cases for testing design changes.

Moreover, by comparing use cases that passed testing with those that didn't, variant analysis can identify the gaps and potential failure points, speeding up defect remediation. This translates into faster time to implementation and lower costs.

## Compliance Checking

The same approach can be used to tackle one of the most critical tasks – ensuring that the re-imagined processes are compliant. Defining a compliant process model and then comparing the output from the "To Be" processes against the compliant model as part of the testing cycle, means that potential breaches can be identified and remediated prior to "Go Live."

Accurate assessments of compliance drive and deviation, such as segregation of duties, help to proactively mitigate and even simulate the management of risks of proposed changes. While system controls typically enforce segregation of duties in payments, there are times when these may not be in force but the underlying requirement is still critical, such as during business continuity events. At times like these, compliance checking is a fast and proven way to ensure controls are working effectively.

## Migration Approach

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For example, a customer's secured lending might reside on the legacy platform and their deposits on the new platform. This means it may be a bumpy ride for customer experience and could introduce new risks for end-to-end customer processes like Know Your Customer (KYC) or Anti-Money Laundering (AML).

Using process mining techniques to analyze and compare variants, particularly less common variants, can help segment customers for migration phasing based on their more unique needs and reduce risk at the same time.

## "Go Live" and Post-Implementation

"Go Live" for any project is a nerve-wracking experience. With so much riding on the success of a digital transformation, it takes on a new level of intensity.

For example, finding and fixing production defects rapidly and within the warranty period traditionally depends on fast and reliable customer/user feedback. However, asking customers and users to explain precisely what happened doesn't always provide the level of detailed analysis needed to address the issues. Defects can go unnoticed, which impacts the customer experience and consequently the costs.

Moving house is stressful for most people. Settling the mortgage on time to ensure a smooth transition is a critical moment of truth for any bank involving multiple stakeholders. Process mining's conformance checking capabilities are a reliable way of identifying where a process has deviated from the intended model. And, testing that all steps have been completed in the correct sequence at the right time is fundamental to ensure a smooth hand-over.

# Ongoing Monitoring

One additional use case that can significantly enhance the value of the overall transformation is that of ongoing process monitoring. While business activity monitoring (BAM) has been around for some time, it is not process-aware.

To gain the full benefits of monitoring, it's important to understand the way the process flows, including both the steps a transaction has been through, and those to come.

Integrating process mining's native capabilities with other technologies such as machine learning can give you a far greater level of comfort in predicting whether your processes will be executed in line with your strategic objectives. In addition, it can provide the ability to automate decision making at key checkpoints or at least escalate transactions at risk, by employing prescriptive analytics built on predictions. For example, knowing that there is a risk that payments may not make cut-off one or two hours before the deadline gives operators the opportunity to prioritize queues and resources to ensure high-value, time-critical payments are processed on time.


Incident management dashboard

# Summary

There is no silver bullet for digital transformation in mature banks with legacy technology and processes. However, introducing process mining into the toolset along with new ways of working will undoubtedly make the transition more efficient and significantly improve the chances of success. Process mining provides visibility and understanding on actual business processes by applying a set of algorithms to transactional data, resulting in highly adaptable, highly maintainable and validated process models. By supporting process efficiency and effectiveness, process mining tools are key enablers of digital transformation initiatives in banking.

# Want to know more? Ready to explore the potential of Process Mining?

The Apromore™ platform is an easy-to-use, fast-to-deploy AI-driven process mining solution that enables business and technology teams to quickly visualize and analyze their business processes, and simulate proposed changes prior to implementation in order to measure impact and risk.

The result of over a decade of extensive research and innovation from leading universities, the Apromore platform includes no-code features and a simple UI that continuously delivers new insights into operational performance and compliance.

For more information, visit https://apromore.com/product

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Nigel Adams is a thought leader in service operations excellence, with deep experience in the banking sector. He has nearly 25 years of experience focused on creating enterprise value from operational improvement, risk management and performance optimization. Nigel is known for driving performance and transformational change at pace while leading large, multi- award-winning teams in complex delivery networks. In addition to a consulting career at KPMG, he has brought his skills to bear for leading banks, including NAB and ANZ, focusing on global payments and cash operations, financial crime, and business performance.

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