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Operational Resilience: Turning a New Regulatory Standard into an Opportunity

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BANKING WHITEPAPER

Easier, lower risk implementation with Process Mining

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Summary

- Operational resilience has become a priority in the banking industry, driven by factors such as the pandemic, digital services, and reliance on third parties.
- Regulators worldwide are developing rules and legislation to enhance operational resilience and risk management.
- Process mining can play a crucial role in strengthening operational resilience by providing insights into process failures, enabling root-cause analysis, facilitating business continuity planning, and enhancing third-party risk management.

Regulatory Initiatives and Focus on Operational Resilience in Banking

Operational resilience has been a hot topic in the global banking community since the Basel Committee released its paper on the Principles for Operational Resilience in March 2021. The Committee views operational resilience as a bank's ability to deliver critical operations through disruption and see it as an outcome of good operational risk management.

While partly driven by the impact of the Covid-19 pandemic, it also recognizes the accelerating transition to digital services, an "always on" expectation from customers, and a wider dependency on third parties to deliver these services.

Acknowledging that some level of disruption will occur, the focus is on planning for, managing through and recovering from disruption.

Regulators around the world have been busy building on these principles to strengthen resilience in their own jurisdictions. In the United Kingdom, new rules were introduced in March 2022 while in the United States, work is underway on a Sound Practices to Strengthen Operational Resilience paper that consolidates materials across US regulators. New legislation is on the horizon in the EU focused on Digital Operational Resilience (DORA). Meanwhile, in Australia, APRA has released CPS 230, a consultation paper on their proposed new regulatory standard for operational risk management.

While the emphasis varies, the intent is the same:

- Strengthen operational risk management.
- Improve business continuity planning to ensure critical operations continue to operate in the event of a disruption;
- Enhance third-party risk management for all partners that expose the organization to material operational risk.

Shifting Regulatory Focus: From Critical Functions to Critical Operations and Continuity in Banking

Regulators are moving away from a critical functions perspective to focus on critical operations. They are also shifting from a recovery-centric approach following disruption to a continuation of operations during disruption. There are also implications for third parties, with regulated entities expected to reach deeper into the supply chain, assessing the operational risk associated not just with material third party providers, but also their suppliers and service providers.

However, in many ways, the industry is simply being asked to demonstrate good operational risk management practices. With the right mindset, it will lead to better outcomes not only for regulators, but for customers, staff, and shareholders alike.

To realize these benefits, regulated organizations need to leverage tools and techniques beyond the traditional operations and process management toolkit. Looking at each of the objectives in turn, this paper highlights a range of practical implications of the proposed standard and how process mining can overcome some of the issues implementation will present.

Operational risk is the potential for unwanted negative consequences from events.

Resilience is the ability to prevent, withstand, and recover from those events.

Strengthen Operational Resilience

The key requirements for this objective include ensuring organizations understand and monitor their risk profile, ensuring the control environment is adequate and taking a proactive approach to incident management. There is an expectation that senior management is responsible for meeting these requirements and the Board has requireqoversight accountability. There is also an emphasis placed on assessing the risk impact of new products and activities. In simple terms, operational risk is the potential for unwanted negative consequences from events. Resilience is the ability to prevent, withstand and recover from those events.

So here the emphasis is on understanding why processes fail and learning from each event to reduce the likelihood of it recurring. In mature financial services organizations, processes are typically complex, fragmented, rife with variation, prone to failure and lacking the data to provide true insights.

Given the volumes flowing through them, when these processes do fail, undertaking root-cause analysis is like looking for the proverbial needle in a haystack, e.g. the one transaction in a million with a rogue character that brings the whole queue to a grinding halt. A “cause unknown” outcome is not uncommon. To make matters worse, both the processes and the rules governing them change frequently and keeping documentation and staff current is a thankless task.

The Role of Process Mining in Operational Resilience

And if that is not enough many organizations still rely on the traditional "ask the SMEs" approach to documenting their processes, which tends to focus on just the happy path with negligible analytical insight, and, with so much variation, the documented happy path might only represent a small proportion of the transactions. Operational risk incidents tend not to materialize on the happy path or at the high level; they happen in the weeds, with the outliers, that then clog up the process for subsequent transactions.

This is where process mining plays a significant role. Automated process discovery helps identify blind spots that SMEs may miss. The process map is derived from the entire population of real transactional data, not just a sample or best guess, making root cause analysis and finding the "needle in the haystack" easier and faster.

Not only that, but when the failure points are being designed out of the process, it can be tested with process mining simulation tools using the same data set. Add to this the predictive analytics that come with real-time monitoring, and the toolset can act as an early warning system for when the process is about to fail, allowing teams to take corrective action. Hence if a process is reaching capacity, resources can be re-directed, either human resources by re-assigning staff or technical resources, such as allocating more memory or server capacity.

Add to this the predictive analytics that come with real-time monitoring, and the toolset can act as an early warning system for when the process is about to fail, allowing teams to take corrective action.

Process Maps and Simulation for Risk Mitigation and Effective Governance in Process Changes

This same approach of combining process maps automatically discovered from transactional data and process simulation can help mitigate the introduced risks associated with change, whether that is changing an existing process or introducing a new process or activity.

It can help identify critical resources, assess capacity utilization and the impact of seasonality, find potential bottlenecks, and evaluate the options to overcome them.

The other requirement that this approach addresses is the roles and responsibilities of senior management and the Board. When the source data can run to tens of millions of events, it would be reasonable to assume that the volume of data would overwhelm the most well-intended Board member.

However, the ease with which the data can be aggregated and tailored in a "no-code" environment makes deriving meaningful dashboards at an appropriate level of aggregation far easier. This allows users to measure what matters to them. This also applies to key control testing. Layering and filtering the entire population of events in test logs, not just sampling, ensures robustness in testing their design and operational effectiveness. If costing data is included amongst the log attributes, the impact on the level of operational risk capital required to be held can also be informed.

This provides visibility and transparency at the right level of granularity, for each level in the hierarchy, from the Board to the Business Analyst, to discharge their duties using the same data set.

Which leads to the last point in this section concerning incident management. With a 72-hour requirement for notifying the regulator of the incidents, generating event logs in near real-time ensures that regulators are notified of incidents within the time limit, but more importantly, the detailed event-level data enables rapid root-cause analysis diagnostics to be undertaken.

Improve Business Continuity Planning

The primary requirement for this objective is to ensure continuity of service during a disruption for critical operations. It is motivated by the progressive shift to digital operations and customers' expectations that services will always be available. There is also the question of what constitutes a critical operation? While some critical operations are prescribed by the regulator, e.g. payments, claims processing and customer enquiries, the organization must determine what it considers to be critical and ensure that it can continue to operate throughout a disruption at the levellevel specified. For critical operations, the regulator expects the organization to set tolerances to define levels of disruption that are unacceptable, as well as maintain credible plans to respond and recover from incidents.

The shift in language to a focus on the outcomes of critical operations for key stakeholders is significant. This implies a need to not only understand end-to-end business processes within the organization, but also those processes managed by third parties that contribute to supporting critical operations. The ability to understand current performance, current failure rates and recovery rates is an essential ingredient to determining the tolerance levels.

Applying these metrics within a simulation model can ensure that the impact on the operational risk profile is clearly understood.

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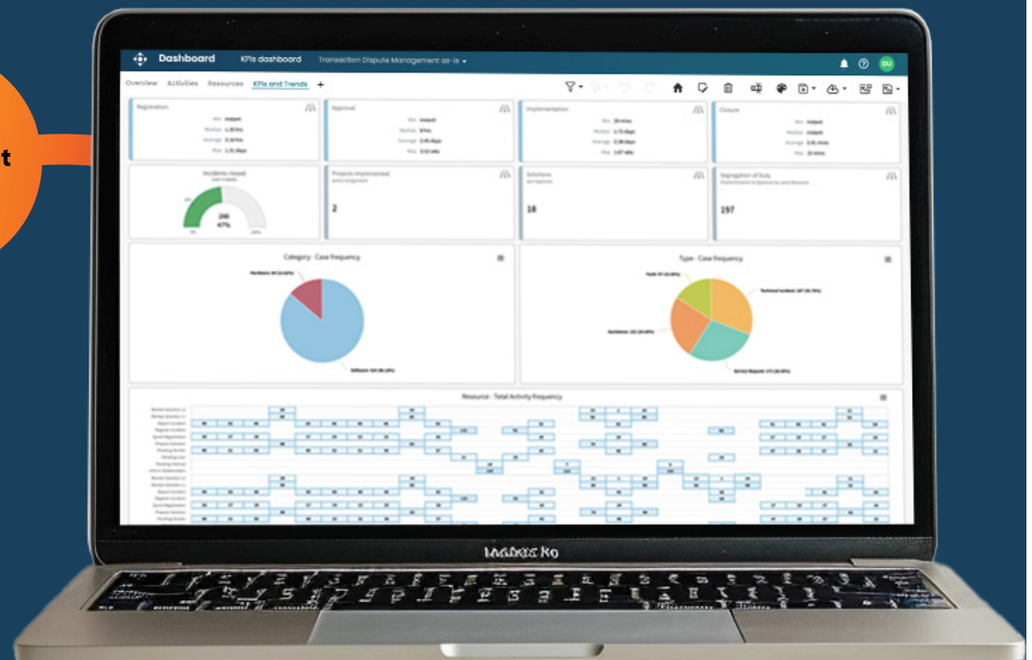
Ongoing Monitoring

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.

Disputes management dashboard



Conclusion

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 aset 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.

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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.

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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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