VIEW POINT



THE POWER OF PROCESS MINING, AI, AND VRM

Driving Value and Operational Excellence

Abstract

In the era of digital transformation, businesses must leverage data-driven insights to optimize operations and gain a competitive edge. Process mining, combined with artificial intelligence (AI) and value realization methodology offers a powerful toolkit for organizations to understand, improve, and realize tangible value from their business processes.

This paper explores the integration of process mining, AI, and VRM, highlighting their synergistic potential. It provides a comprehensive overview of process mining, its integration with Infosys VRM, and a real-world case study demonstrating the impact on the Order-to-Cash (O2C) process for a dairy firm in the Nordics.



Introduction to Process Mining and Artificial Intelligence

Process mining provides a data-driven approach to discovering, analyzing, and improving business processes. It extracts insights directly from event logs within existing IT systems, offering an objective and accurate view of how processes actually function. Al enhances process mining by providing robust predictions, fostering collaboration between humans and AI, and ensuring transparency.

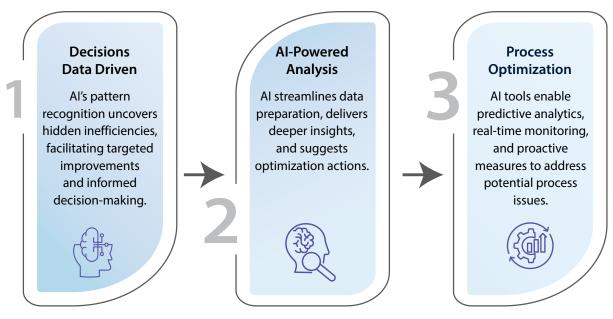


Figure 1: Advantages of Integration of AI with Process Mining

The Power of Process: Business Process Mining (BPM) and its Applications

Process mining makes process efficiency measurable and transparent, providing a foundation for benchmarking performance against industry standards. It enables organizations to benchmark operational performances such as automation rate, throughput time, and rework across different organizations. With digital traces available on standard platforms and in the cloud, benchmark data becomes accessible as a self-service, allowing companies to assess their own performance versus other market players.

Business process mining offers a wide range of applications. Some of the most common use cases are optimising core financial processes, enhancing customer experience, improving compliance & risk management, streamlining supply chain management, and supporting digital transformation initiatives. This makes Business Process Mining a versatile methodology that drives operational excellence, continuous improvement and business impact across various industries.



Figure 2: Impact of Business Process Mining on Business

Infosys' Approach to Business Process Mining

Every business operates with blind spots – areas where resources are wasted, or processes could be smoother. The challenge lies in identifying these inefficiencies, because without that awareness, businesses miss opportunities to improve productivity, profitability, and ultimately, their competitive edge. Infosys leverages a four-step approach to identify and visualise these inefficiencies by utilising process mining and integrating it with our proprietary Value Realization Methodology (VRM) to maximize value for clients:

DISCOVERY

- Functional workshops and research to define our current processes.
- Identify benchmarks and KPIs specific to the industry.
- Quantifying the value levers associated with the processes, allowing us to hypothesize potential improvement scenarios.

ROOT CAUSE ANALYSIS

- Setting up a process mining instance includes loading the relevant data, configuring visualizations and dashboards within the tool, and establishing processes for ongoing data updates.
- Helps identify deviations from the expected process flow, pinpoint areas with high manual effort, and assess the efficiency of KPIs to establish clear focus areas for improvement.

VALUE REALISATION METHODOLOGY (VRM[™])

 Value Realization Methodology is used to help prioritize pain points and recommendations for next stage (change management initiatives, transformation initiatives, process elimination, among others).

ONGOING SYSTEM MONITORING

- Ongoing monitoring to ensure we capture the impact of any implemented changes and identify new areas for optimization.
- Allowing for proactive adjustments and ensures the process remains efficient and aligned with our overall goals.

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Figure 3: Infosys' Approach to Value Realisation through Business Process Mining



Infosys offers a comprehensive program designed to help organizations unlock their full potential and achieve sustainable success. We help organisations identify key areas with potential for value realisation and then build a roadmap for long-term achievement. This ensures that success isn't just a one-time win, but a foundation for lasting growth.

Technical and Business Expertise

Infosys brings a wealth of experience to the table, encompassing both technical and business acumen. This translates into a comprehensive approach to your project, ensuring successful implementation.

From a technical perspective, we begin by validating your existing system against industry standards and project needs, creating a solid foundation. Our team meticulously identifies and addresses any anomalies to prevent future roadblocks. We'll then develop clear dashboards that adhere to best practices, providing you with real-time insights. To optimize your system, a feasibility analysis of your current deduction management processes is conducted. Furthermore, Infosys collaborates with the stakeholder to define a clear and efficient workflow for the project. Streamlining processes is key, so our team will establish new logic based on your automation requirements. Finally, Infosys conducts thorough simulations and testing to guarantee the functionality and effectiveness of the new system.



Figure 4: Bridging the Gap: Combining Technical Know-How with Business Acumen

From a business perspective, Infosys goes beyond simply collecting data. We ensure your KPIs are meaningful by validating them against industry standards. This verification process guarantees you're measuring the right things. Our focus starts with understanding your specific business needs. This in-depth knowledge allows us to collaborate with your technical team to develop an industry-standard dashboard tailored to your unique goals. This user-friendly dashboard provides actionable insights that empower you to make informed decisions. To further optimize your processes, Infosys conducts a root cause analysis of your current deductions. This analysis identifies inefficiencies that might be hindering performance. By working alongside your team, we can develop automation solutions to address these root causes, streamlining processes and saving valuable time.

By leveraging Infosys' data-driven approach, you gain a comprehensive understanding of your performance, identify areas for optimization, and navigate a clear path towards achieving your business goals.

3.2 Infosys' Value Realisation Methodology (VRM[™])

The Infosys VRM provides a structured framework for ensuring that digital transformation initiatives deliver tangible business value (Infosys, 2020). As per research, a staggering 70% of programs halt after the first two stages, resulting in a failure to harness the full value of transformations. VRM is essential in navigating this challenge, offering a structured path to ensure every phase is meticulously addressed, leading to robust returns on investment.

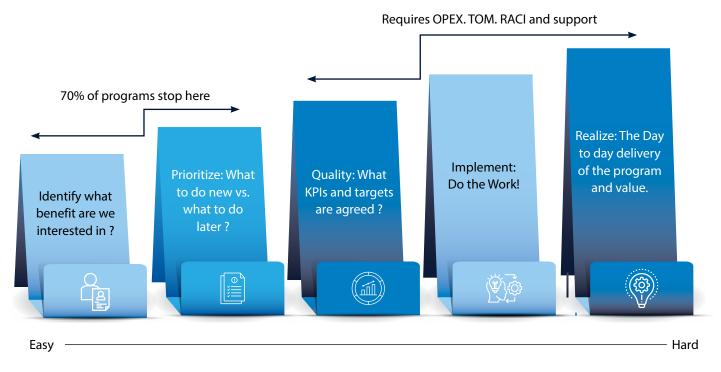


Figure 5: End-to-end Value Realisation Methodology

By integrating VRM with BPM, organizations gain a holistic view of their business processes, aligning process improvement efforts with strategic goals and ensuring maximum return on investment.



Case Study: Business Process Mining (BPM) for O2C Process in a Nordic Dairy Firm

The order-to-cash (O2C) process is a firm's entire process from when a customer places an order to when the company receives the payment. It encompasses everything from order receipt and fulfilment to invoicing and collection. An efficient O2C process is crucial for dairy firms as their end-to-end order cycle is brief, at times less than 12 hours. Efficiency ensures smooth order fulfilment, minimizes errors, and reduces collection time period. This translates to happy customers, improved cash flow, and better financial health for the company. The dairy firm wanted to gain a clearer understanding of their order-to-cash (O2C) process. This led to the inspection of KPIs like order rejections, manual interventions and process automation. To address this, Infosys utilized process mining with a dedicated tool. By analyzing event logs, we were able to identify root causes of associated bottlenecks and opportunities for optimization.

By leveraging machine learning, the BPM tool transformed event data into actionable insights. This AI enabled analysis ultimately guided the value realization assessment and helped recognise and prioritise the most impactful areas for improvement.

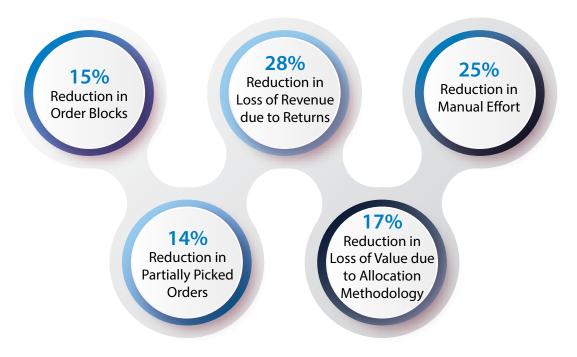


Figure 6: Key Value Identified

The initiative led to significant improvements, including a reduction in order blocks, partially picked orders, and manual effort, resulting in increased revenue and operational efficiency. The integrated BPM and VRM approach ensured that process optimizations aligned with business goals, maximizing value. BPM contributed to envisage a transformation roadmap addressing improvement actions through identification of process deviations and pain points within the O2C process, resulting in higher value actualisation.



Conclusion

The integration of process mining, AI, and Infosys VRM is a powerful combination for organizations seeking to unlock the full potential of their business processes. Process mining provides objective insights into process performance, AI augments analysis and drives optimization, while VRM ensures that improvement efforts deliver tangible business value. This synergistic approach allows organizations to gain data driven insights, achieve operational excellence, improve customer experience, ensure compliance and foster innovation.

As AI and process mining technologies continue to evolve, businesses can expect even greater capabilities in process optimization and value realization. The future of process management lies in the seamless integration of these technologies, fostering a culture of continuous improvement and ensuring a competitive edge in the rapidly changing business landscape.



Citations

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