

Leading global commercial vehicle manufacturer leverages Process Mining to streamline procurement operations

Capgemini Invent enables leading global commercial vehicle manufacturer to improve automation and increase transparency for optimized process performance

Enhancing efficiency in indirect procurement

A leading global manufacturer in the commercial vehicle industry, known for providing reliable and environmentally friendly transportation solutions, focuses on continuous improvement of indirect procurement processes and internal operations.

The goal of the project was to enhance operational efficiency by gaining a deeper understanding of the interdependencies between various processes and their impact on automation rates, throughput time, and data flows. The project specifically examined the purchase-to-order (P2O) process, with two variations investigated in detail by a cross-functional project team with experts from business and IT.

Overview

Client: Daimler Truck AG

Region: Germany

Industry: Automotive

Client Challenge: Improving the transparency of purchase-to-order (P2O) process while simultaneously addressing supplier data consistency issues.

Solution: Capgemini Invent leveraged the power of Process Mining to realize process adjustments that boosted efficiency and accuracy, improved transparency, and enabled a reduction in manual effort for the client's P2O process.

Benefits:

- Increasing accurate automated tasks and decreasing manual interventions resulting in compliant and correct purchase orders
- Enhanced data transparency and process visibility
- Optimized price finding process and improved master data accuracy
- Established process monitoring, benchmarking capabilities, and value tracking
- Significant boost in efficiency and accuracy of process productivity

The first variation was the P2O process for indirect stock materials. This involved investigating the part routing process in the non-transparent automated ordering system. An additional pain point was the non-comprehensible price-finding process in externally stored catalogs, which resulted in non-compliant purchase orders and required significant manual effort for correction.

The hypothesis was tested that discrepancies between the client's master data and the suppliers' data in the catalogs were preventing successful automatic matching.

The second variation was the P2O process for indirect services and small-volume materials, which, in contrast to the first variation, is a highly manual process. Thus, the focus was on identifying opportunities for simplification and automation. The project identified and analyzed numerous manual repetitive tasks, offline interactions, process loops, and the effects of interfaces with multiple local IT systems.

Through the combined expertise of Capgemini Invent and the project team, indirect procurement operations were streamlined using data-driven process analysis and decision-making.

Empowering process optimization through advanced data integration and analysis

The project utilized a use case-driven approach based on pre-defined hypotheses and engaged both operational stakeholders and management. A comprehensive five-step approach was applied by Capgemini Invent that leveraged the project team's extensive technical expertise in Process Mining and procurement. The first step, process tracking, involved conducting on-site workshops to map out the P2O process including its variations. As a result, Capgemini Invent laid the foundation for the second phase: use case identification. By examining the customized processes and pinpointing the client's pain points and potential value, the project team identified key use cases for further deep dives.

With this step complete, the integration of the Process Mining technology was initiated, which allowed for objective, data-based insights that enabled better decision-making. During this stage, the project team established multiple data connections, developed the backend infrastructure, and created over 25 tailored dashboards that support benchmarking, simulations, and routing to facilitate a data-driven, cost-efficient, and scalable approach to process optimization.

The project continued with a sprint setup, which included detailed planning, technical working sessions, and a prioritized backlog of work items. This agile approach was instrumental in refining the dashboards and conceptualizing new ones. Finally, the value realization phase utilized the developed dashboards to analyze the defined use cases. Throughout this process, Capgemini Invent conducted on-site value workshops to review the findings, define actionable steps, and consistently eliminate inefficiencies through pinpointing new opportunities for automation.

To ensure the solution's sustainability, Capgemini Invent provided continuous coaching, enabling the client's stakeholders to effectively use the newly developed dashboards. This comprehensive approach addressed the company's most pressing needs and empowered key leaders with the tools and knowledge to continue leveraging data-driven insights.

Future-ready procurement with advanced dashboards and data analysis

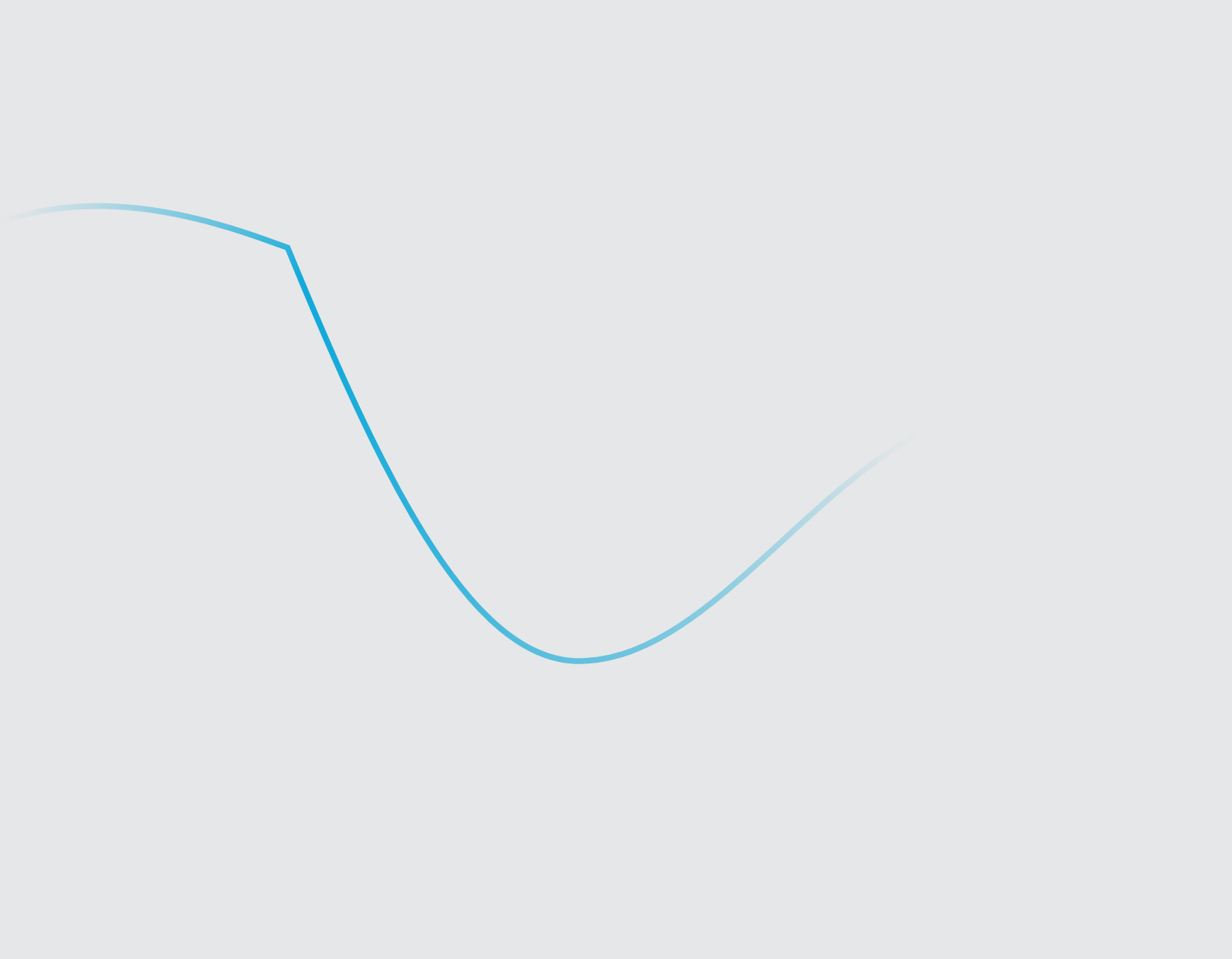
With over 25 developed dashboards presenting near real-time data analyses related to the defined use cases and hypotheses, the data is presented to display evaluations ranging from process throughput times to the effects of process loops and repetitions on lead times. Based on these analyses, the project team identified improvement opportunities.

Agreed KPIs were embedded directly into the benchmarking dashboards to provide the procurement team with full, actionable transparency on performance. In addition, access to near real-time data empowered the team to be agile and responsive to adapt processes for maximum impact to align with targets.

During the one-year project, the client adjusted the automated stock material process, resulting in an increase of the matching quota according to the procurement routing strategy. This enabled the client to use the negotiated prices with the strategic suppliers. Additionally, a detailed analysis focused on the deviation between the suppliers' master data information and the clients' catalogue data. Capgemini Invent programmed a customized logic in the catalogue price finding search, which led to an increase in the automatic matching quota. This customized logic bridged the data discrepancy in a straightforward, compliant and resource-efficient manner.

Thanks to this data-driven approach and close monitoring of selected KPIs, the joint team successfully demonstrated the positive impact of the project on the procurement process.





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