



Transforming Procurement Process with SAP Business AI: Enabling Intelligent Decision-Making

Industry Overview: Constructing Smarter Procurement in Industrial Manufacturing

Procurement is critical for manufacturing operational effectiveness and financial management in industrial manufacturing. As the supply chain becomes increasingly complex and dynamic, organizations are seeking more intelligent means of managing suppliers, reducing costs, and optimizing decision-making speed. Organizations cannot depend on conventional analytics or manual tracking quickly enough to meet the scope and pace demanded by the supply chain.

Artificial intelligence and data-driven technologies are now transforming the way procurement functions work. By converting real-time transactional data into insights, companies can forecast risk, spot opportunities, and make every purchase choice, helping in the creation of long-term value.

Protiviti's Involvement in Advancing Procurement Intelligence

Protiviti is helping organizations to transform procurement by integrating intelligence into SAP environments as part of a disciplined value-based approach that helps clients transition from process automation to deployment of intelligent decision-making.



Emphasizes improved visibility, increased control, and enhanced supplier performance through contextual insights.



Blends extensive SAP and industry expertise to provide customized, high-impact purchasing solutions.



Merges business objectives with technology to achieve quantifiable outcomes.



Facilitates organizations in shifting from traditional processes to self-improving, data-driven operations.

Protiviti joins strategy with technology to help manufacturers build procurement ecosystems that are efficient, clear, and future-ready.

Addressing Procurement Inefficiencies within a Multi-Plant Manufacturing Environment

The customer, a large Indian industrial manufacturing group with a multi-plant establishment and a central shared services organization, depended on SAP S/4HANA for core operations. Although the ERP system

ensured transactional accuracy, the procurement function continued to face issues with dispersed data, limited visibility, and excessive manual intervention in critical processes.

Business Challenges



Heavy reliance on non-contract buys and recurring approvals is hindering cycle times.



Unreliable pricing at plants and suppliers, resulting in lost opportunities for savings.



Inadequate predictive visibility to price volatility and vendor risks.



Unreliable pricing at plants and suppliers results in lost opportunities for savings.

Procurement teams wasted a significant amount of time compiling reports and reconciliations, rather than focusing on strategic sourcing or collaboration with suppliers. Business owners recognized the need for a smart layer of intelligence that would transform operational data into preventive insights.

Operational and Technical Deficiencies



Incomplete and unstructured spend data leads to fragmented reporting.



No mechanism driven by the system to identify price or approval discrepancies in real time.

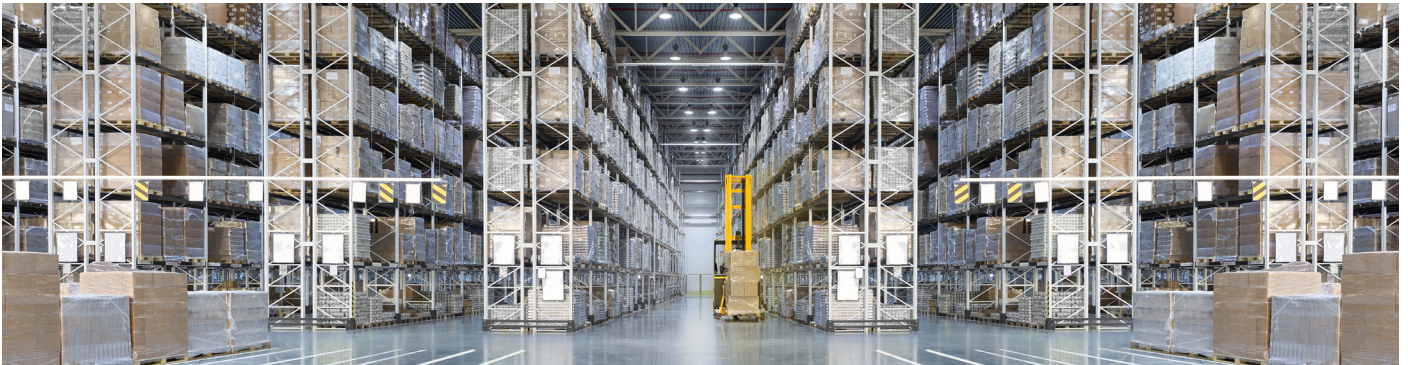


Manual vendor assessments lead to delayed performance evaluations.



Lack of predictive analytics for supplier risk and invoice mismatch avoidance.

The client wanted to transform its procurement function with embedded intelligence in its processes to facilitate increased agility, governance, and data-driven decision-making.



Creating an Intelligent and Practical Procurement Solution

Protiviti collaborated with the client to create a procurement intelligence solution that embeds AI insights into SAP S/4HANA through SAP Business AI and SAP BTP. The objective was to develop a system able to

learn from real-time data, recognize patterns, and send recommendations to end-users, streamlining decision-making while preserving control.

Solution Overview

The solution integrated predictive analytics, conversational intelligence, and automation in a single SAP environment.



Invoice Exception Prediction

Automated detection of potential invoice discrepancies eliminated rework and manual validation time.



Chat-Based Procurement Assistant

A natural-language interface via SAP Joule allowed users to ask supplier or spend information questions in plain language, enhancing user adoption and accessibility.



Spend Categorization and Analytics Dashboard

AI-powered categorization of unstructured spend data delivered insight on procurement patterns and cost-reduction opportunities.



Purchase Requisition Recommendations

AI provided recommended preferred suppliers based on historical pricing, quality, and delivery data, which standardized sourcing decisions.

This setup made sure that intelligence was embedded in each process step, from requisition to payment, which assisted procurement teams in moving quickly, reducing risks, and gaining measurable efficiency improvements.

Implementation Strategy and Solution Deployment

Protiviti adopted a targeted, phased implementation strategy to provide seamless deployment with quantifiable outcomes from the outset.

Implementation Methodology



Training and Testing of Models

Leveraged SAP AI Core and SAP AI Launchpad for lifecycle governance and tuning of the predictive models.



Business Process Analysis

Assessed existing procurement processes to determine AI applications with the highest business relevance.



Data Validity and Preparatory Work

Provided high-quality, harmonized supplier and spend data to support effective AI training.



Change Management and User Training

Performed live sessions with procurement teams to familiarize them with AI-based workflow.



Solution Design and Configuration

Implemented AI models alongside current S/4HANA processes and BTP extensions.

Key SAP Elements Established



SAP AI Core and SAP AI Launchpad for model governance and real-time suggestions.



SAP Analytics Cloud provides guided dashboards for visual and actionable insights.



SAP Joule (Generative AI Assistant) connected to S/4HANA and Ariba provides conversational analytics.



SAP Predictive Scenarios to evaluate supplier risk and scoring.

Implementing a 10-week sprint helped ensure business alignment, rapid adoption, and no disruption to ongoing operational workflows.

Delivering Tangible Results through Procurement Operations

Three months into its deployment, the AI-based procurement system achieved transparent and quantifiable results across several aspects of the business.

Notable Accomplishments



Achieve 25% greater accuracy in supplier assessments, enabling more effective negotiations.



22% reduction in procurement cycle duration through AI-recommended suppliers.



70% of buying decisions are currently backed by AI-driven insights built into SAP screens.



30% reduction in invoice exceptions, leading to improvement in Accounts Payable.



Higher usage and user satisfaction through a streamlined conversational interface.



18% decrease in maverick spend through AI-driven alerts and controls.

Proven methodology and Lessons learned



Maintain clean and organized master data, quality inputs produce significant AI outputs.



Begin with high-data domains like procurement to gain early success.



Develop an ongoing loop of learning where business feedback indirectly improves model accuracy over time.



Integrate insights into existing applications that employees already use, instead of building duplicate systems.



Leave users engaged closely with pilot stages to create trust and confidence.

This strategy made AI adoption realistic, goal-driven, and long-lasting in all procurement functions.

Enhancing Procurement for the Smart Enterprise

Through Protiviti's collaboration, the client transitioned from a procurement environment characterized by data overload to a smart, insight-driven ecosystem. This change increased efficiency, transparency, and responsiveness, while also equipping the organization for future innovation.

The program also transformed the procurement team's role to transition from operational execution to strategic value creation. Through automated insights and predictive foresight, teams were able to devote their time to supplier relationship management, working capital improvement, and cost efficiency.

Future Outlook

Based on the success of this project, the client intends to:



Embarking on predictive analytics for enhanced cash flow and inventory planning.



Expanding AI capabilities into finance and supply chain planning for enhanced cross-functional insights.



Incorporating ESG and compliance metrics into supplier assessment frameworks.



Increasing the utilization of SAP Joule for multi-domain conversational insights.

Through this partnership, Protiviti showed how SAP Business AI can be effectively integrated into business processes to provide consistent, measurable value. The client now works with greater agility, lower risk, and a forward-looking basis for intelligent enterprise transformation.

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