

# Optimizing Procurement in Manufacturing with Smart Spend Management

## Abstract

Globalization has dissolved borders and provided numerous opportunities for manufacturing organizations to expand their footprint. It has also made manufacturing supply chains complex, which necessitates firms to put in place multiple processes and workflows for a seamless supply of goods and services to meet market demands on time. However, without a means for planning their production and measuring their spends, business performance takes a dip. Further, COVID-19 has caused unprecedented challenges for businesses across industries. To tackle these challenges and mitigate risks, the procurement function within manufacturing organizations is adopting robust spend management processes that provide visibility on procurement expenses, enable working capital management, prioritize spends, and help with intelligent utilization of funds.

This paper explores how a spend management framework – containing an amalgamation of functional, technological, and process interventions – simplifies the complexities of modern-day spend management for the procurement function. It also addresses the challenges and difficulties procurement teams encounter in managing direct, indirect, and maverick spends.

## Generating business value from spend management

From being regarded as an auxiliary function, procurement has come a long way. In the first half of financial year 2020, the total costs for major manufacturing organizations have been almost 90% of revenue generated<sup>1 2 3</sup>. This includes procurement costs, cost of production, logistics, sales – general and administrative expenses (SG&A), and more. Due to COVID-19, organizations worldwide are facing supply chain disruptions and are losing revenue. Optimizing procurement processes presents organizations with an opportunity to reduce costs, which in turn impacts the bottom line and improves profitability. It is therefore important for businesses to have overall spend visibility and trim down discretionary spending to preserve cash.

Chief procurement officers (CPOs) are leveraging analytics and data-driven insights to make impactful business decisions. Research by Gartner has shown that by 2020, a majority of organizations will benefit from improved business outcomes by investing more in data and analytics<sup>4</sup>. Data-driven spend analysis will benefit organizations by providing them visibility across the supply chain, including offering insights on lead times, service, quality, supply availability, and more.

## Direct, indirect, and maverick spends

Spend analysis provides an end-to-end view of an organization's procurement activities. But to identify and take advantage of savings opportunities, it is necessary to understand and target different spend categories.

**Direct procurement** is most critical to an organization as it directly supports the production of goods and is responsible for customer experience, product quality, and operational efficiency. It is an extensive and complex process which requires tracking, controlling, and coordinating with numerous stakeholders. Thus, direct spend is closely monitored, managed, and controlled because of the high-risk factors involved.

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<sup>1</sup> Clariant; Clariant preserves profitability in first nine months of 2020 despite difficult economic environment; October 29, 2020; <https://www.clariant.com/en/Investors/Latest-Results>

<sup>2</sup> LafargeHolcim; Resilient Half-Year performance, full recovery in June; July 30, 2020; <https://www.lafarge-holcim.com/hy-2020-results>

<sup>3</sup> ABB; Q2 2020 results; July 22, 2020; <https://new.abb.com/news/detail/65310/q2-2020-results>

<sup>4</sup> Gartner Research; 2017 Strategic Roadmap for Enterprise Information Management; March 28, 2017; <https://www.gartner.com/en/documents/3645361/2017-strategic-roadmap-for-enterprise-information-manage>

**Indirect spend** involves the procurement of goods and services to facilitate a business to maintain and develop its operations. The goods and services procured are largely low-value items that are consumed by internal customers rather than external stakeholders. Compared to direct spend, it receives lesser visibility as well as resources.

**Maverick spend** is a category, where goods and services are purchased outside the procurement process. It breaks the conventional rules and processes laid down by procurement functions either intentionally or by not following the purchase terms as per negotiated contracts.

## Inherent challenges of managing procurement expenses

Some challenges in managing direct and indirect spend are as follows:

- Reliable consolidated spend data is unavailable. Businesses use heterogeneous internal and external data assets from multiple enterprise applications.
- Data quality is poor due to a lack of governance, systems, and processes.
- Gaps in operations and processes across various domains like contracts, purchase, and invoicing create major roadblocks in consolidating and analyzing spend data.
- Due to a large diversity of vendors and items purchased, items are not classified and using random nomenclature makes it very challenging to track.
- Lack of coding, sporadic buying, and limited categorization.
- Sparse procurement standards for a large number of stakeholders spread across the organization.

## Addressing the spend management challenges

Decision makers at multinational companies are leveraging analytics to develop spend management strategies. Majority of these companies make their decisions based on incomplete and inaccurate data obtained through multiple sources. As a result, businesses often rely on intuition, as they are unaware of how much is spent, for what product, and with whom. An integrated spend management framework which is a combination of spend analysis strategies, process, and technological interventions is the answer.

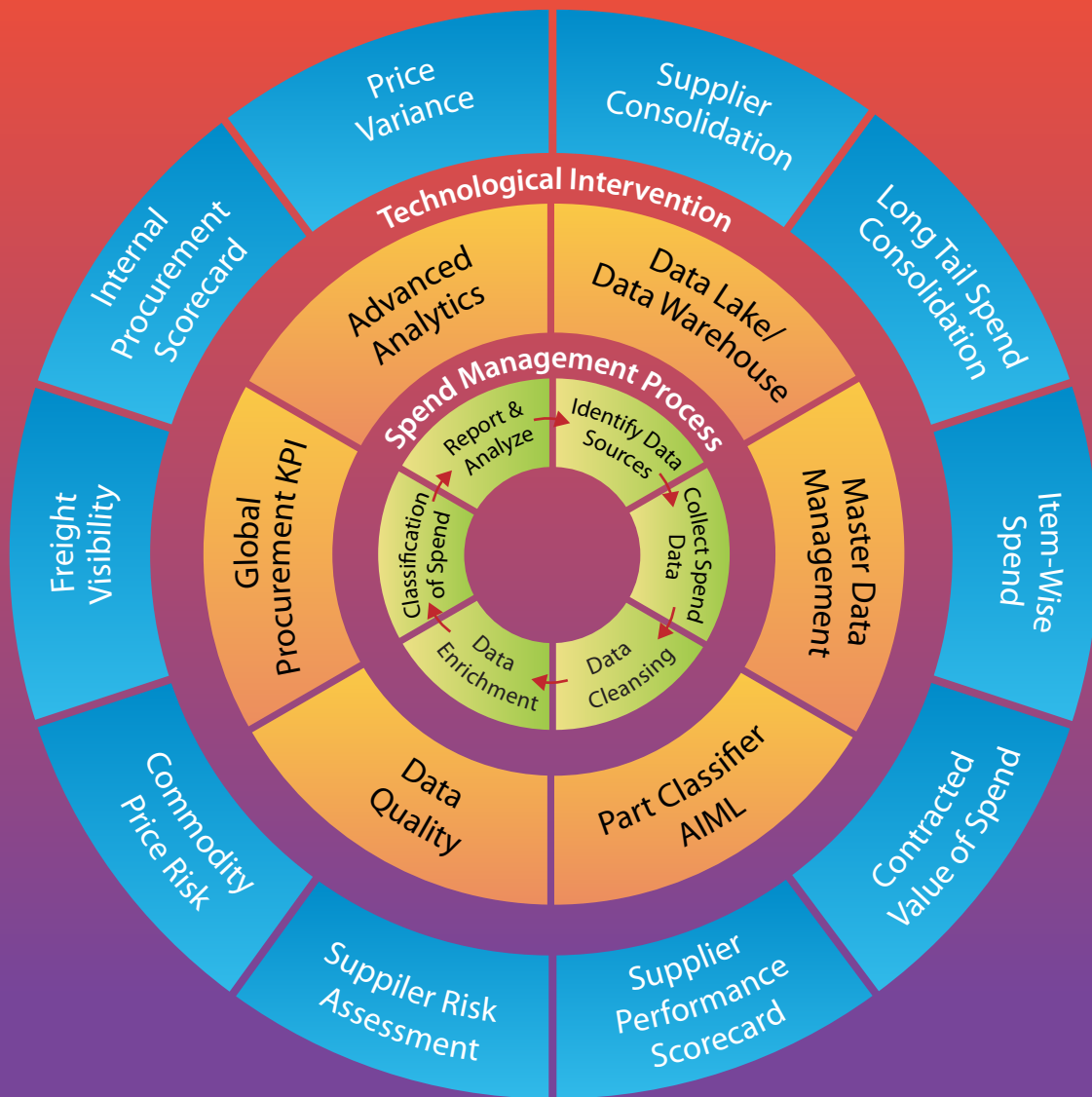


Figure 1: Spend management strategy

## 1. Spend analysis strategies

Some of the most successful strategies are as below:

**Supplier consolidation:** Analysis of the supplier base, organization spend, and categorization of items will provide insights into the suppliers' monopoly, rationalization, and consolidation, and will help with negotiating better rates for volume.

**Long tail spend consolidation:** Classification of spend by supplier and creating a chart by ranking suppliers in decreasing order of annual spend.

**Item-wise spend:** Insights into which supplier item is sourced, its cost, location, etc. can identify spend leakage, purchases from non-preferred vendors, maverick spends, and detect high procurement rates.

**Contracted value of spend:** With contracts, organizations can adhere to terms as determined during negotiations. This helps them source for products and services from preferred suppliers and identifies spend leakage due to non-compliant procurement.

**Supplier performance scorecard:** This offers visibility into supplier performance. It measures and monitors compliance and rates suppliers objectively for overall performance across facilities to enable comparison.

**Supplier risk assessment:** Proactive supplier risk assessment and formulation of mitigation strategies will help manufacturers weather losses.

**Commodity price risk:** Fluctuations in commodity prices cannot be wholly passed down to customers, which decrease profits. An analysis of commodity prices, order and demand, supplier, spend, and inventory can help manufacturers predict commodity prices and develop efficient hedging strategies.

**Freight visibility:** Freight is an important component of net cost and directly impacts profitability. Visibility into freight charges tracks excess expenditure, higher charges, and non-adherence to agreed freight terms.

**Procurement scorecard:** Provides an automated metrics dashboard or scorecard that summarizes KPIs critical to an organization.

**Price variance:** Provides variances over the life cycle of purchase orders (original or current) and invoices. Organizations make better decisions by comparing and controlling the contracted price over the final PO price, thereby making suppliers accountable for overcharging or substitution.

## 2. Approach, process, and methodology

Spend analysis involves a four-stage process, where each step has its own methods and goals. The first step is collecting data from multiple sources, which is then followed by cleansing and normalizing data to make it usable for analysis. Subsequently, mapping and classifying clean data provides company-wide visibility of the total spend. Measuring total spend through strategic metrics depends on the objectives of the organizations. Such measurement can track spending across business units, vendors, and commodities.



*Figure 2: Process for managing and analyzing spend data*

## 3. Technology interventions

The following technologies support data analytics at every stage of the spend analysis process, right from data collection to reporting:

**Enterprise data lake/data warehouse (EDW):** This acts as a single data repository for data collection, transformation, and analysis. With a growing volume and range of data, cloud-based EDWs are becoming an essential architectural approach.

**Master data management (MDM):** It creates an understanding of the existing data landscape, objects, and structures and provides governance. Suppliers, products, and customer data should be included to cover the entire supply chain and create consistent references across the domain.

**Cognitive spend analytics and parts classification:** With artificial intelligence and machine learning-based algorithms, manufacturers can mine data to identify maverick spends, process variations, and tokenizing text with material names. These technologies can also detect the right United Nations Standardized Products and Services Code (UNSPSC) class. Accurate spend classification with granular details on standard taxonomy or company-specific standards brings transparency to strategic procurement.

**Global procurement KPI framework:** This uses visualization tools to monitor and analyze performance across cost, quality, and delivery.

## Smart spend management for intelligent solutions

Collecting, integrating, and transforming vast amounts of data is just the first step of building a data-driven analysis system for procurement.

Organizations should bring transparency into spend data by onboarding partner networks and ecosystems together to capture and categorize spend. Intelligent spend management allows leaders to strike a delicate balance between optimizing spend and increasing business agility. Moreover, by analyzing spend data along with contracts, organizations can identify strategic suppliers and/or distributors and make decisions to integrate vertically with upstream and/or downstream functions in the supply chain through acquisitions. Evaluating spend data not only delivers higher profit margins by reducing costs, but also increases revenue thanks to the decision-making power gained through spend analysis.

#### About The Authors

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Bhalchandra Nisal is a Solution Architect in the Innovation and Transformation Group (Data and Analytics), Europe Manufacturing, at TCS. He has over 19 years of experience in end-to-end implementation of data and analytics solutions. He has served in various roles like solution architect, program/ project manager, data architect, and business analyst for several large and medium business intelligence implementations across the manufacturing, banking, financial services and insurance, and transportation domains. He has led several consulting engagements, advising organizations on their data and analytics strategy, organization and governance, solution architecture and implementation roadmaps.

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