

Original Article

Revolutionizing Business Processes with SAP Technology: A Buyer's Perspective

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Received: 09 February 2023

Revised: 15 March 2023

Accepted: 27 March 2023

Published: 10 April 2023

Abstract - The COVID-19 pandemic led to a massive shutdown followed by a slowdown that caused supply chain disruption. The disruption in the supply chain, coupled with changes in consumers' buying behavior, created a fear of out-of-stock situations for the buyers. Like many other roles, a buyer's position exists before and after the pandemic. In addition, the pandemic was followed by inflation which further challenged the buyers' part. In this article, we will summarize four critical roles/tasks and sub-tasks of modern-day buyers and how digital transformation technology and tools can help to make better and more efficient decisions for buyers. Furthermore, since we come from an SAP background, we will provide tools/solutions from an SAP S/4 HANA perspective.

Keywords - SAP S/4 HANA, Modern Day Buyers, Procurement, Digital Transformation, Sustainability in Procurement.

1. Introduction

Modern-day buyers face challenges in identifying their organization's purchasing needs and coordinating with the sales organization. This is because the modern business environment is characterized by increased complexity and uncertainty, making it difficult for buyers to assess their organization's needs and plan accordingly accurately. In addition, the modern supply chain is highly interconnected, with numerous stakeholders and processes involved in procuring and delivering goods and services. As a result, it is essential for buyers to work closely with their sales organization to ensure that they have a clear understanding of sales forecasts [8,24,28] and can align their procurement strategies accordingly. Modern buyers must be highly skilled in data analysis, communication, and relationship management to address these challenges. They must be able to analyze sales data and market trends to identify emerging needs and opportunities while building solid relationships with their sales counterparts to ensure a coordinated procurement and supply chain management approach. Furthermore, modern buyers must proactively seek new technologies and solutions that can help them streamline procurement processes and improve supply chain visibility. This may involve investing in digital tools such as e-procurement platforms, supply chain analytics software, and collaborative planning tools to help buyers better anticipate and respond to changing market conditions.

Determining the right supply source [3], managing procurement costs, meeting supplier minimums, and

reducing freight costs are all essential considerations for modern-day buyers. To determine the right supply source, buyers must consider various factors, including product quality, pricing, delivery times, supplier reliability, and sustainability [17-18].

To manage procurement costs efficiently, buyers often negotiate volume pricing discounts with suppliers and seek cost-effective alternatives for products and services. They may also leverage technology to automate procurement processes and reduce transaction costs. Meeting supplier minimums is critical to ensure that the supplier can maintain profitability and continue to provide high-quality goods and services. Buyers may work closely with suppliers to understand their minimum order requirements and develop procurement strategies that meet these requirements while optimizing costs. Reducing freight costs is another important consideration for modern-day buyers, as transportation can account for a significant portion of total procurement costs. To minimize these costs, buyers may consider alternative shipping methods, consolidate orders, and negotiate favorable rates with carriers [9] [1-2] [19-20] [12-15]. Once the buyer has determined the right supplier and negotiated favorable pricing and terms, they work with the vendor to transmit the purchase order, which outlines the products or services being purchased, the delivery date, and the payment terms. This is a critical step in the procurement process, as it formalizes the buyer and supplier agreement and ensures that both parties are aligned on the transaction terms [28].



Managing purchase order confirmations for quantities, cost, and date and expediting purchase orders are essential tasks for modern-day buyers. Purchase order confirmations [6] help ensure that the supplier has accurately captured the purchase details, including the quantities, costs, and delivery dates, while expediting purchase orders can help ensure timely delivery and prevent production delays. Modern-day buyers must also understand their supplier's production capacity and logistical capabilities to manage their workload effectively. This can include understanding lead times for production and delivery, the supplier's inventory levels, and any constraints that may impact their ability to fulfill orders. In addition, buyers may need to work closely with suppliers to address any issues or concerns that arise during the procurement process, such as quality or delivery issues [4-5] [7]. This may involve negotiating new terms or timelines, resolving production or logistical challenges, or finding alternative solutions to meet the organization's needs.

2. Literature Review

Modern-day companies face challenges in managing their business operations due to siloed and complex systems that hinder their efficiency and productivity. The inefficiencies in these systems lead to significant revenue losses for companies, as research by IDC suggests that organizations lose 20 to 30 percent of revenue annually due to such inefficiencies [21]. These losses are caused by various factors, including poor data quality, inadequate communication and collaboration among different teams, and insufficient automation of business processes.

Another study [22] shows that supply chain disruptions, inflation, and sustainability requirements have become increasingly critical for procurement stakeholders in recent years. These challenges have forced procurement professionals to engage more proactively with their suppliers and to develop more robust supply chain management strategies.

Companies seek ways to streamline operations and enhance efficiency to address these challenges. One approach is to invest in integrated business systems that unify various functions, such as procurement, supply chain management, and sales, into a single platform. This can help eliminate silos and enhance collaboration and communication across different teams and departments. By doing so, companies can improve the quality of their data, reduce errors, and improve decision-making based on real-time data and insights.

In addition, companies are turning to technology solutions such as automation, machine learning, and artificial intelligence to automate repetitive tasks and enhance their productivity. Automation can help reduce errors, save time, and allow employees to focus on higher-value activities, such as strategic planning and relationship-building. Machine learning and AI can help companies analyze large amounts

of data and gain insights into customer behavior, market trends, and business operations, enabling them to make more informed decisions.

Overall, effective procurement requires a combination of technical expertise, strategic thinking, and strong communication and relationship management skills. By staying informed about market trends, leveraging technology to streamline processes, and building solid relationships with suppliers, modern-day buyers can help ensure their organizations have the resources they need to succeed in today's rapidly evolving business environment. In my previous role, we used to call this "Buyer, Buyer hair on fire."

3. Four Essential Responsibilities

3.1. Interaction with a Customer Sales Representative

3.1.1. Role

- In today's world, the customer's forecast is crucial in initiating demand planning and procurement. An accurate demand forecast helps buyers to ensure that over or under-procurement of the product does not happen. Conversely, inaccurate or no forecast may result in additional inventory or losing an opportunity to fulfill customer needs.
- Modern-day buyers work closely with sellers or customer sales representatives to understand the forecast, expedite any sales order supply, or manage the dropship sales order (purchase requisitions or purchase orders).

3.1.2. SAP Tools & Technology

- SAP has provided APO/IBP software components to manage demand forecasts and planning to provide better visibility and integration with buyers.
- Apart from that, if sellers on the SAP C/4 system capture forecasts, they can flow down to SAP S/4 as planned independent requirements for the SAP Material Requirement Planning (i.e., MRP).

3.2. Planning Results Review & Selection of the Supplier

3.2.1. Role

- It is one of the most critical tasks a buyer must execute. They are making sure that all the demands (i.e., forecast, sales order, reservation, dependent requirements, etc.) have been supplied with the right supplier assigned to them.
- The buyer tries to understand the vendor's production capacity or resource constraint.
- The buyer also ensures that buying is efficient, sustainable (with lower CO2 footprints), and has lower freight cost, meeting the vendor's minimum order quantity. Buyers also try to utilize the power of scale for a better price.
- The buyer also considers whether demand can be fulfilled with stock transfer orders.

3.2.2. SAP Tools & Technology

- SAP has a robust material Requirement planning algorithm whose primary goal is to monitor stocks and automatically generate procurement proposals for purchasing and production. However, since the buyer's role is more to do purchasing, we will focus on purchase requisitions.
- With S/4, HANA SAP has provided a material requirement planning cockpit to review the shortages and expedite the supply.
- SAP has minimal features/tools available to review the MRP results (i.e., purchase requisitions) and allows buyers to perform load building at purchasing requisitions, enabling buyers to perform buyer efficiently and keep the landed cost at the lowest. In my experience, we built custom tools/Fiori tiles.

3.3. Interaction with the Supplier

3.3.1. Role

- In today's world, buyers spend most of their time interacting with suppliers. The interaction starts with the communication of the purchase order to the supplier. The buyer also works with the supplier to get confirmation of the purchase order by date, quantity, value, and price unit.
- The buyer also works with suppliers to understand the production capacity and resource constraints to adjust the delivery date of the purchase order.
- Global supply chain issues brought many challenges, one of which was the frequent price change of the

product. Therefore, the buyer actively works with suppliers to accommodate ongoing price changes.

3.3.2. SAP Tools & Technology

- While purchase order communication to buyers is out of the box functionality from the SAP system, minimal tools/Fiori applications are available to enable buyers to perform purchase order confirmation by each purchase order or complete purchase order by date, quantity, value, and price unit. In my experience, I have built custom Fiori tiles.
- The same applies to mass purchase order reprices. I have built a custom one, but SAP still needs a tool to perform mass purchase order reprices. Both of those tools give buyers efficiency and productivity.

3.4. Corporate Matrix and Reporting

3.4.1. Role

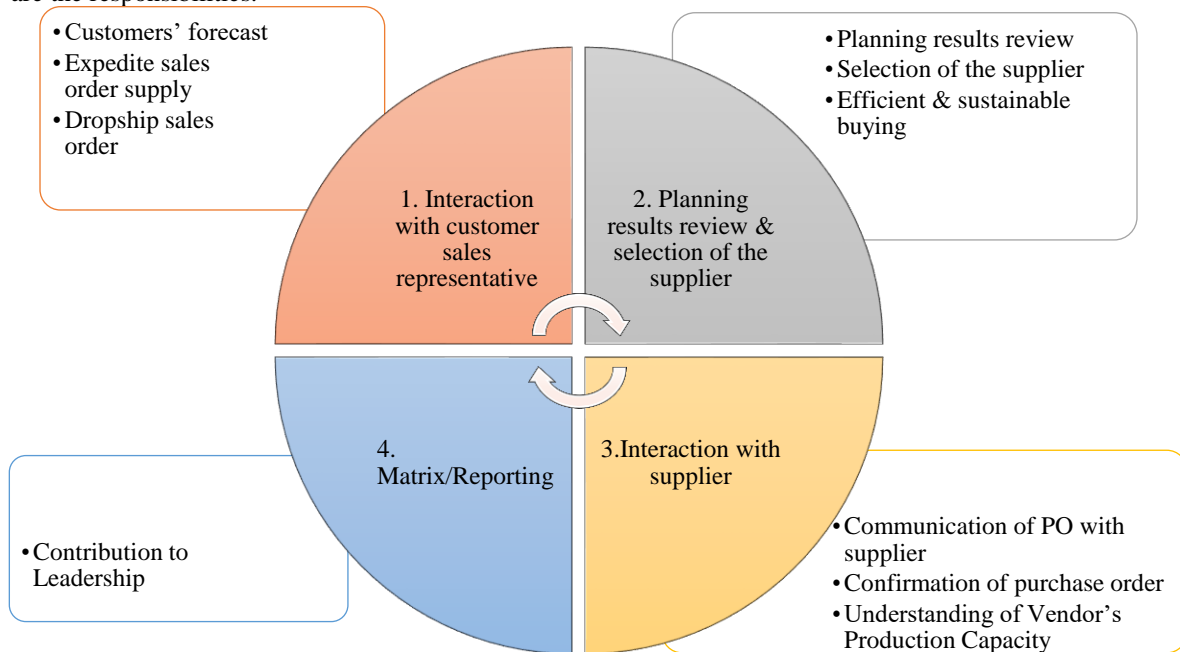
- Finally, buyers help clarify fill-rate reports and the reason for not having inventory on the floor, which eventually helps leadership perform root cause analysis.

3.4.2. SAP Tools & Technology

- SAP has standard reports but does not cover all the requirements. For example, in our experience, we have developed the running inventory/balance inventory reports and fill-rate reports to help buyer performance better analysis.

4. Responsibilities

Below are the responsibilities.



5. Below are Commonly used Tiles

5.1. MRP Cockpit – Monitor Material Coverage to Work with Materials Shortages

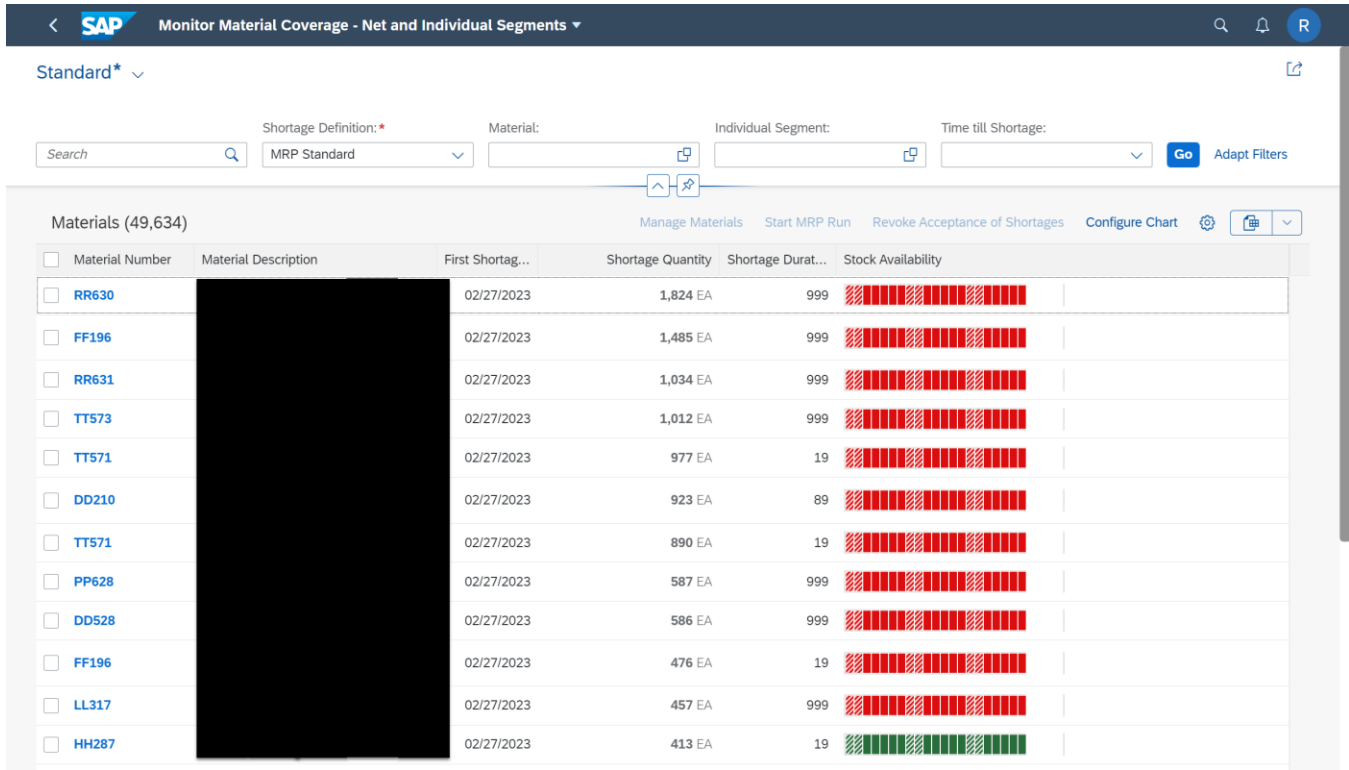


Fig. 1 MRP Cockpit – Monitor Material Coverage

5.2. Process Purchase Requisitions

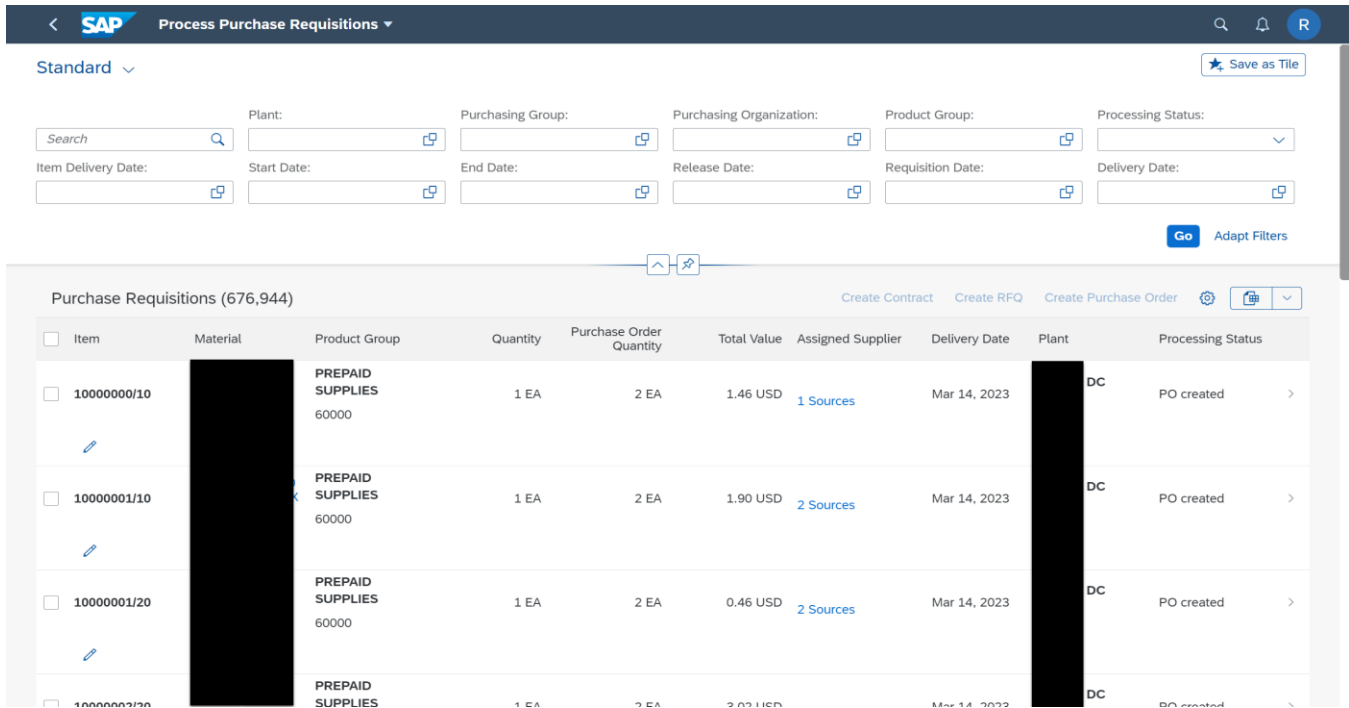


Fig. 2 Process Purchase Requisitions

5.3. Manage Purchase Order

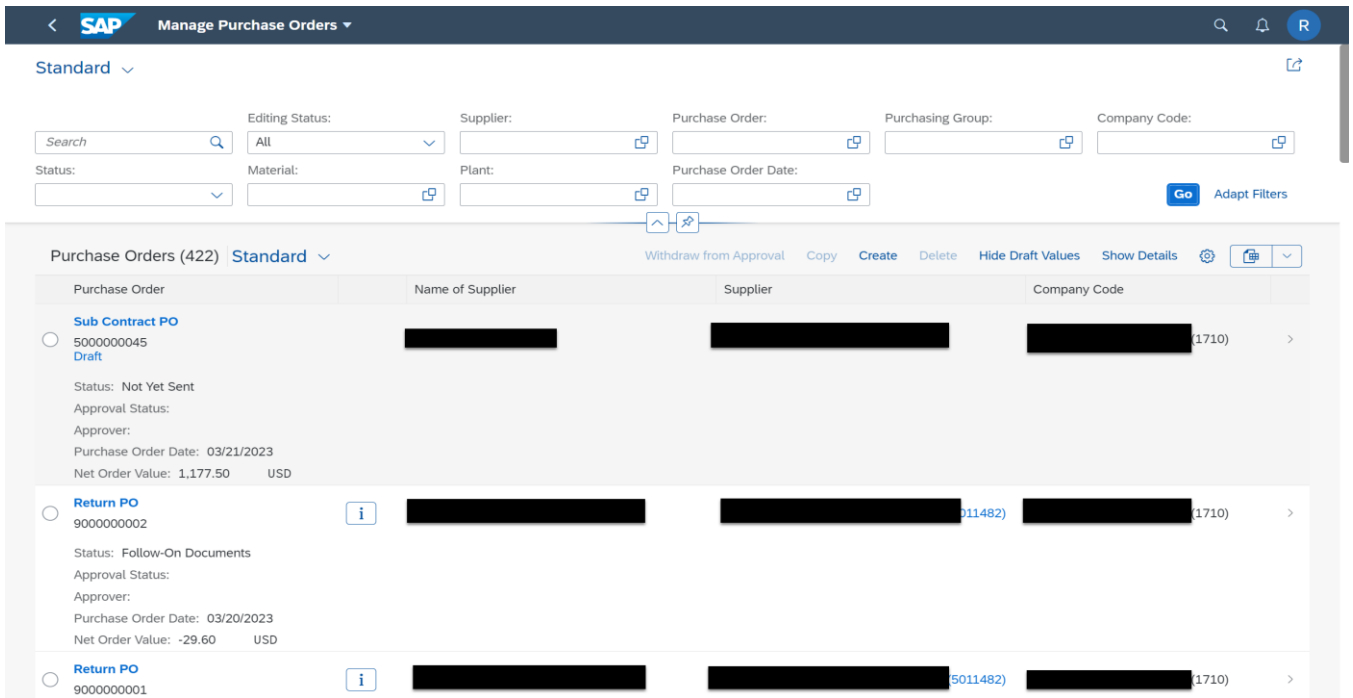


Fig. 3 Manage Purchase Order

5.4. Monitor Supplier Confirmations

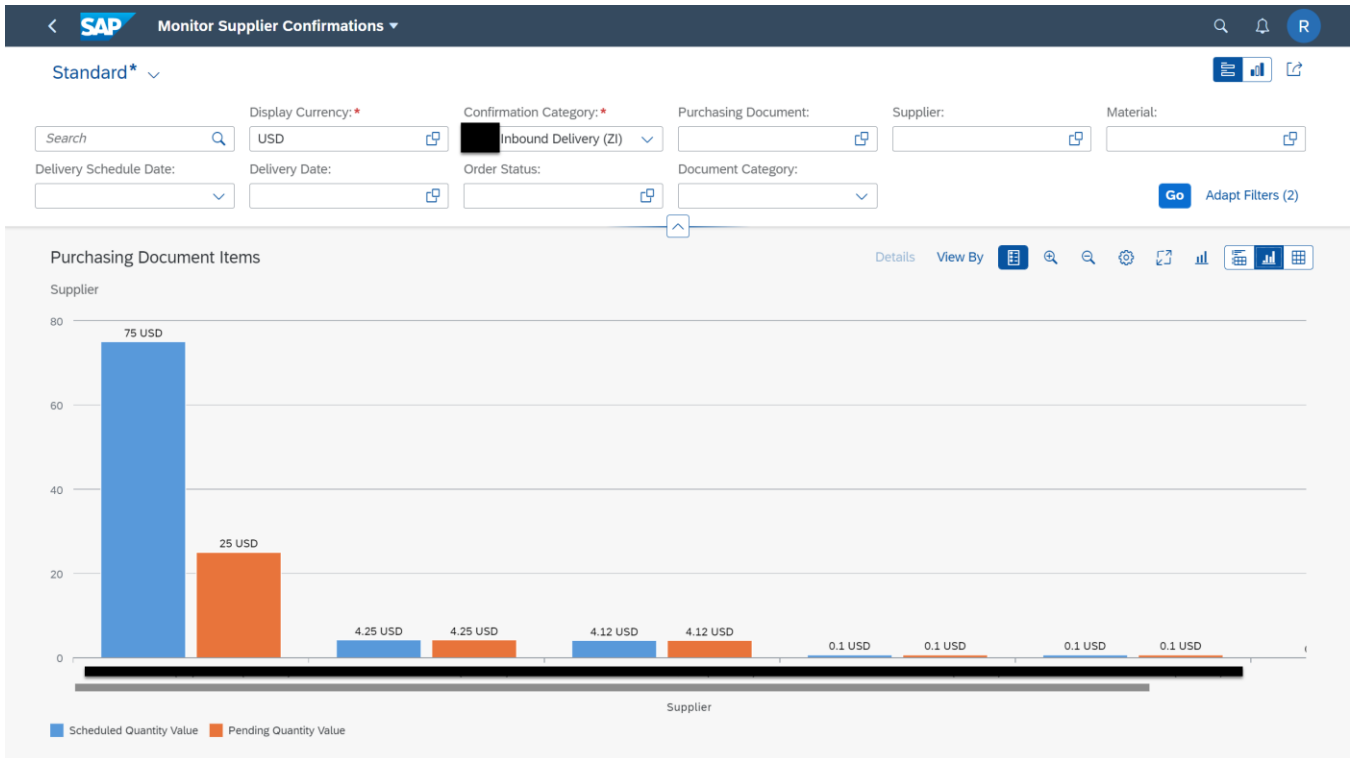


Fig. 4 Monitor Supplier Confirmations

5.5. Procurement Overview Page

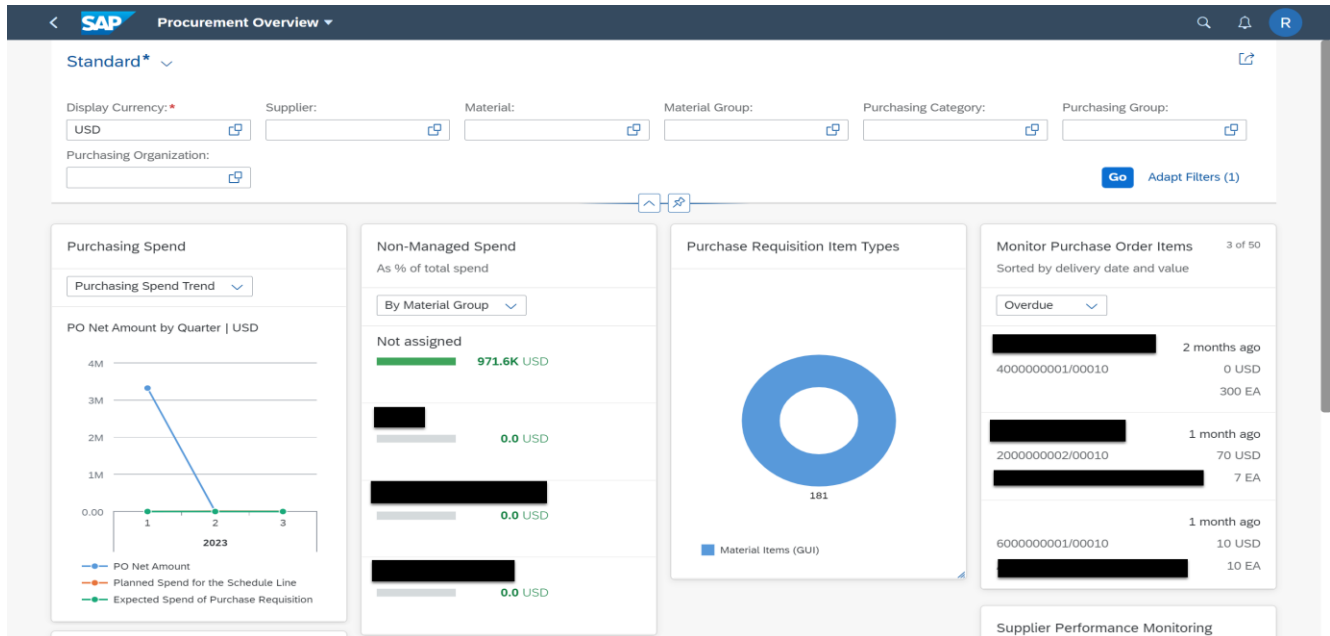


Fig. 5 Procurement Overview Page

6. Benefits

Company's Revenue	Efficiency/ Productivity Gain in hours	Number of Working days Per year	Total Hours saved per buyer	Approximate buyers per organization	Total time savings for the entire organization	Hourly Salary	Total Saving
\$800M – \$1B	2	260	520	50	26000	\$36.06	\$937,560
\$1B to \$1.5B	2	260	520	75	39000	\$36.06	\$1,406,340
\$1.5B to \$2B	2	260	520	100	52000	\$36.06	\$1,875,120

Assuming 260 working days in a year would result in a total time savings of 520 hours per year (2 hours per day * 260 working days).

If we multiply this by the number of buyers in the organization (for example, 50), we can estimate the total time savings for the entire organization. For example, if there are 50 buyers in the organization, the total time savings would be 5,000 hours per year (500 hours per year * 10 buyers).

This time savings could increase productivity, reduce costs, or allow buyers to focus on more strategic tasks requiring expertise. However, it is essential to note that the actual time savings may vary depending on the specific tools and processes implemented, as well as the individual capabilities of each buyer. If we translate those time saving into \$ (assuming \$36.06/hrs), then it will be \$937,560 saving for the organization (small organization client with revenue just below \$1B).

7. Conclusion

Procurement technology can help organizations secure a competitive advantage. Procurement technology can help

streamline the procurement process, increase transparency, and provide valuable insights into supplier performance and market trends. By leveraging technology, procurement teams can make more informed decisions, negotiate better contracts, and reduce costs.

However, it is also true that not all organizations prioritize procurement technology investment in their IT budget. This may be due to various factors, such as budget constraints, competing priorities, or a need to understand procurement technology's value to the organization.

Organizations must consider the potential benefits of investing in procurement technology and weigh them against other IT priorities. As procurement continues to evolve and becomes more strategic, leveraging technology can help organizations stay ahead of the curve and gain a competitive advantage in the marketplace.

Acknowledgments

This article was supported by Shari Schlau (Business Process Lead at Composites One) – We sincerely thank her for her contribution and valuable input.

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