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# LEVERAGING DATA FOR AUTONOMOUS PROCUREMENT

IN CONTEMPORARY LOGISTICS, DATA-DRIVEN PROCUREMENT PLAYS A CRUCIAL ROLE. BY UTILIZING DATA AND ANALYTICAL TOOLS, COMPANIES CAN MAKE WELL-INFORMED CHOICES WHILE PROCURING LOGISTICS SERVICES. THIS, IN TURN, LEADS TO ENHANCED EFFICIENCY, BETTER TRANSPARENCY, AND LOWER EXPENSES.

BY SUJATHA VISHNURAJ



At Cummins India, our in-house developed analytics solution for inventory optimization helps our supply chain teams across various distribution centers and plants to effectively predict safety stock level requirement based on current inventory and expected customer demand. This has improved product availability while reducing the inventory carrying costs for the company.

**Shubhankar Chatterji**, Chief Supply Chain Officer, Cummins India





General Electric has implemented a program called "Brilliant Factory" that analyzes data from sensors and other sources in their manufacturing facilities. This helps the company identify and address inefficiencies in real time. Ford uses big data analytics to optimize its production processes by analyzing data from various sources such as sensors on assembly lines, customer feedback, and sales data. This has helped Ford reduce production times, improve product quality and increase customer satisfaction. Bosch uses big data analytics to optimize its inventory management by analyzing customer demand data, sales trends, and supplier performance. This has helped them reduce inventory levels, improve order fulfillment times, and increase profitability.

**Arun Kumar Singh**  
Senior Director, Mogix

**Information is the cornerstone of any system's** improvement. A data-driven procurement approach is centered around this principle, utilising big data and analytics to enhance processes at every stage of the supply chain. Various technologies contribute to this effort, including interconnected IoT sensors and warehouse robots. For instance, a data-driven warehouse employs actual performance data to determine the optimal way to integrate a robot into its operations. Such data-driven solutions are precisely what the supply chain requires in today's world.

#### THE ROLE OF BIG DATA

"Big data analytics has significantly changed the industry by increasing its focus on predictive analytics. Supply chain professionals are now using historical data to predict future trends and identify potential risks and opportunities. This proactive approach has minimised supply chain disruptions and improved decision-making. In addition, analytics has fostered better collaboration and communication between suppliers and manufacturers, resulting in optimized operations and reduced costs," shares Shubhankar Chatterji, Chief Supply Chain Officer, Cummins India.

Gulshan Kaushik, Senior Vice President, Customer Success, Bizongo says, "The supply chain industry has seen a significant evolution in the role of big data analytics, particularly with the emergence of digital vendorization platforms. The ability to collect and analyze vast amounts of data has become crucial for optimizing supply chain processes and enhancing performance. Real-time insights into inventory levels, shipping and delivery times, and changes in demand are among the key benefits of big data analytics. This information can be leveraged to predict future trends and make data-driven decisions that improve operational efficiency while reducing costs. Big data analytics has transformed from a useful tool for improving efficiency to an essential component of digital vendorization platforms that provide greater visibility".

Overall, big data analytics in the supply chain has evolved from a tool for improving operational efficiency to a strategic asset that can help the organization gain a competitive advantage. "We also notice that input data for analytics is also taking a more holistic shape, from process & finance-specific data to include people, skillset, material characteristics, environmental, geo-related and a wide variety of risk-related data, says Senthil M, Vice President, Product, Zetwerk.

Data-driven procurement provides businesses with greater visibility into their logistics network. They can track shipments in real-time, identify potential issues, and take proactive measures to address them. This can help prevent delays, improve customer satisfaction, and reduce the risk of supply chain disruptions.



#### BENEFITS OF DATA-DRIVEN PROCUREMENT IN LOGISTICS

Leveraging analytics can improve sourcing strategies, inventory management, and manufacturing processes, resulting in cost savings, improved customer service, and faster deliveries. "Visualisations can help organisations quickly identify trends and insights from data. ROI can be measured through ERP solutions and tracking changes in cost savings, customer satisfaction, and delivery time," said Gulshan. Arun shares similar sentiment, "Measuring ROI involves tracking performance indicators such as cost savings, on-time delivery, inventory optimization, and customer satisfaction, benchmarking against pre-analytics data to identify improvement opportunities."

Shubhankar lists down numerous benefits of leveraging big data analytics in supply chain management:

1. End-to-end supply chain visibility
2. Improved forecasting resulting in reduced inventory costs and improved customer satisfaction.
3. Optimized operations providing increased operational efficiency and reduced costs.

4. Enhanced collaboration between suppliers leading to better decision-making
5. Better risk management measures

He says, "The key to measuring ROI is establishing clear goals and KPIs at the outset of the investment and tracking the metrics over time."

1. **Increased efficiency:** Allows businesses to analyse data and identify areas to improve their logistics operations. This can result in significant cost savings and improved efficiency.
  2. **Improved visibility:** Gives businesses greater visibility into their logistics network. They can track shipments in real-time, identify potential issues, and take proactive measures to address them. This can help prevent delays, improve customer satisfaction, and reduce the risk of supply chain disruptions.
  3. **Reduced costs:** By analysing data, businesses can identify areas where they can reduce costs, such as by consolidating shipments or optimizing routes.
  4. **Better decision-making:** Enables businesses to make more informed decisions when selecting logistics providers. By analysing data on provider performance, businesses can identify the most reliable and efficient providers.
- Challenges

While data-driven procurement offers many benefits, it also presents several challenges. One of the main challenges is data quality. Data must be accurate and consistent to be useful for analysis. Therefore, busi-



At Bizongo, we have created a cloud factory which empowers MSME manufacturers to create more SKUs for their customers and an unmatched supply schedule. By introducing digital methodology on the entire production process and supply chain, Bizongo has been able to raise the working efficiency of the factories, where various stakeholders have access to relevant information, helping them to optimize their supply chain operations and improve their overall efficiency.

**Gulshan Kaushik**,  
Senior Vice President,  
Customer Success,  
Bizongo

