5 ways to build a better supply chain

By Kerry Hope   17 Oct 2018

In South Africa, optimising the supply chain is essential for company performance. In an atmosphere of political and economic uncertainty, constant technology-led disruption, and the challenge of huge geographic distances, companies are forced to embrace new ways of producing and distributing goods to stay a step ahead of the competition.

Source: pixabay.com

By leveraging technology to streamline the supply chain, companies can experience a positive impact on profitability and customer satisfaction. Here are a number of examples.

1. Just the right amount of inventory

IoT can be used to provide a real-time window into product quantities and, when necessary, automatically send an order to a supplier for depleted stock.

Keeping just the right amount of inventory ensures that cash is not tied up in excess goods while preventing delays in service that can tarnish customer satisfaction and result in expensive rush orders. Product availability can also be displayed on a screen to more efficiently respond to customer inquiries and to provide input for better procurement planning.

2. More reliable shipping

Algorithms can be used to select the best alternative port when the original port is blocked, estimating times-of-arrival, and even gauge the likelihood that a carrier will cancel a booking. Data can be used to carpool deliveries on the same routes and to schedule with an eye on fluctuating oil prices. It is also possible to analyse the influence of extreme weather conditions on shipping schedules.

3. More efficient warehouse

Artificial intelligence (AI) can identify inventory and order patterns to reveal which items are selling and should be restocked first. Automated pick lists can be sent to mobile readers and devices to help eliminate mistakes and reduce wasted time and paper.

Using barcode or radio frequency identification (RFID) readers can improve the accuracy of transactions and reduce picking errors.

4. Reliable delivery

Timely delivery is essential for customer satisfaction. Smart sensors and predictive analytics can be used for planning driver routes and delivery schedules including predicting outcomes given a certain set of route conditions. Performance can be monitored and routes can be changed to respond to delays or issues as they happen.

5. Supplier management

By tracking and analysing data concerning supplier performance, companies can tailor their own production schedule and pinpoint vendors that may be costing them unnecessary resources. Here to, AI can be invaluable by helping companies select suppliers that provide goods and services at the lowest price with the least amount of risk.

Streamlining the supply chain has many financial benefits, but it does require an investment in new systems to support the free flow of information that is required for analysing and optimizing business processes. To streamline end-to-end processes, different systems need to be integrated including Product Lifecycle Management (PLM), Enterprise Resource Planning (ERP), Warehouse Management, and Customer Relationship Management (CRM) systems. Integration platforms can significantly reduce the costs of development to integrate each system while reducing ongoing maintenance costs.

Due to the benefits of increasing efficiency for every stage of product delivery, streamlining the supply chain has a strong return on investment. With all the recent innovations available to improve productivity, continuously optimizing the supply chain has become part of normal business operations.

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