

Navigating the ever-changing landscape: The unfolding metamorphosis of supply chain management

By MJ Schoemaker

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In recent years, supply chains have had to change dramatically. Their metamorphosis has been accelerated by chaotic disruptions ranging from the pandemic, wars and climate catastrophes to the container shipping and energy crises. South African businesses have had to contend with riots and unrest, freight and port issues, the electricity crisis and, most recently, water outages.



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Supply chains and supply chain management have been garnering more interest and attention than ever before. From a field that not many people understood or knew much about, supply chain management became an important, in-demand profession when the COVID-19 crisis thrust it into the spotlight. More people started to understand that virtually everything that we use or touch every day has reached us through supply chains, and that they are about more than just moving goods from A to B. With subsequent disruptions, supply chain management has continued to make headlines, and it continues to evolve.

Where did it start?

The Independent newspaper is credited with using the term "supply chain" for the first time in 1905. Between the 1900s and 1950s, global supply chains started to take shape. The 20th century witnessed a shift towards integrated supply chain systems, particularly during World War II, when military logistics demanded precise coordination. Post-war, global trade expansion fuelled the need for efficient supply chain management, leading to the development of concepts like Just-In-Time (JIT) and Total Quality Management (TQM) in the latter half of the century.

"Supply chain management" was coined in 1982 by British logistician Keith Oliver. He used the term in an interview with the Financial Times. This was his definition: "Supply chain management is the process of planning, implementing and controlling the operations of the supply chain with the purpose to satisfy customer requirements as efficiently as possible. It

spans all movement and storage of raw materials, work-in-process inventory and finished goods from point-of-origin to point-of-consumption".

While it is still a relatively young field compared to many other professions, supply chain management has come a long way since it was explained by Oliver. Volatility and disruption is now the norm in supply chains. According to a report by the World Economic Forum, many chief executives now identify supply chain turmoil as the greatest threat to their companies' growth and their countries' economies.

The rise of the machines

This turmoil has fuelled the rise of the machines in supply chain; but unlike those in the Terminator movie, the technology in today's supply chains is playing a critical, often life-saving role. Artificial intelligence, analytics, big data, machine learning and intelligent robotics are all part of the arsenal used by supply chain managers to handle and even predict disruptions, to ensure the uninterrupted movement of goods, including essential medicines. Technology is enhancing supply chain visibility and enabling synchronised planning and execution, data-driven decision-making, predictability and supply chain agility.

Supply chain design now encompasses smart logistics solutions based on the Internet of Things (IoT) and next-generation robotics. Mobile and stationary robots are assisting workers with warehousing, transportation and last-mile delivery tasks.

While some of today's supply chain technology may sound like science fiction, other aspects of supply chain management are going back to basics and back to a time when transport and infrastructure limitations meant that supply chains were typically local and restricted to regions. Many organisations are moving their manufacturing closer to home to protect against supply chain disruptions. Supplier diversification, localisation and nearshoring are some of the key lessons delivered by the pandemic and other disruptions.

Unlike the transformation of a caterpillar to a butterfly, supply chain metamorphosis never ends. Supply chain disruptions are expected to continue in 2024 and beyond, with war, weather and inflation cited by many experts as some of the causes. Change is the only constant that supply chain managers should count on, and it is vital to stay connected, informed and up to date; to share knowledge, network and build new skills and expertise.

ABOUT MJ SCHOEMAKER

MJ Schoemaker is the president of Sapics (The Professional Body for Supply Chain Management), a non-profit organisation founded in 1966 to elevate, educate and empower the community of supply chain professionals across Africa.

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