



Key challenges impacting the global supply chain

ERP Solutions – Giving companies the control they need and the experience they want.

Introduction

It's not unusual for supply chains to be under constant stress. A winter storm, hurricane, labor strike in a critical industry or a sudden change in government policy can play havoc with how supply chains function. It has always been this way. But now, the market is massively stretched, demand is at unprecedented levels, capacity is at record lows, and there is a sense of urgency to get things back on track.

As a result, the supply chain has moved from being a cost-reduction engine to take center stage in the battle to offer superior customer experience and deliver competitive advantage.

According to the United Nations Conference on Trade and Development (UNCTAD)

80% of global trade by volume and over **70%** of international trade by value happens by sea. Although the shipping crisis marked the beginning of the crumbling of the global supply chain, things were in danger of breaking down even before COVID-19 hit the world.



Few of the early commentators on COVID-19 disruptions anticipated the magnitude of the latest shock, which has seen **eight-fold increases in average container shipping rates**, global transit times lengthen by **25%** or more and widespread product shortages at every level in the value chain.

In this white paper, we examine the key challenges impacting the global supply chain and the role Enterprise Resource Planning (ERP) solutions play in giving manufacturers the control they need to deliver the experience they, their supply chain partners and their customers are looking for.



Challenge: Unavoidable macro-economic circumstances

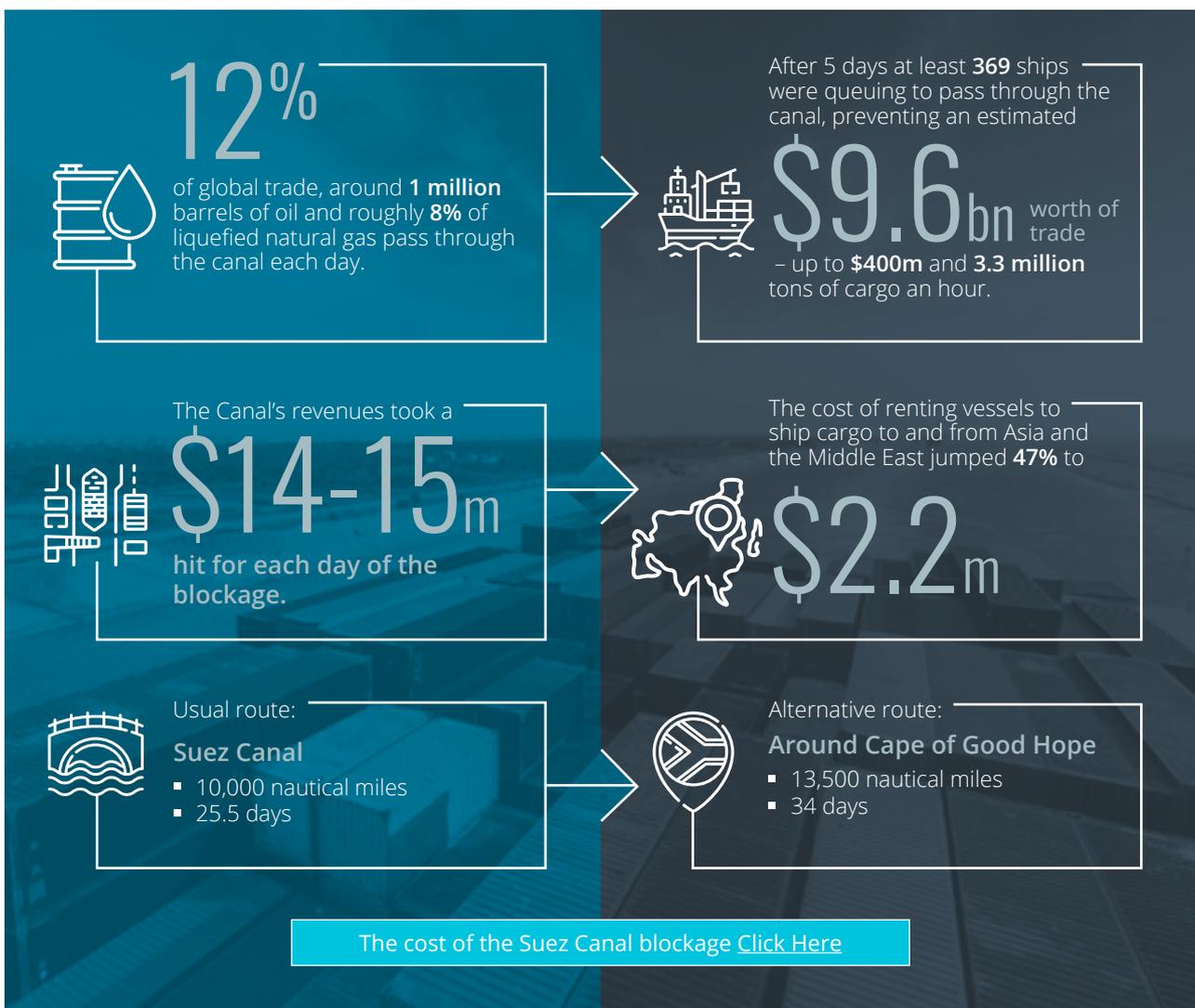
External factors such as Brexit in the UK, trade embargoes in the US, lockdowns and the Suez Canal obstruction are driving companies to decrease their reliance on single partners in distant lands and turn to dual partner strategies that include more local suppliers.

All the above are causing delays and bottlenecks around the globe. The effects of the trade war are not limited to bilateral trade flows; they are felt in many areas of economic activity. Supply chain disruptions, higher prices and increased economic uncertainty have cooled down consumption as well as the investment climate.

The US has seen 100-vessel queues off its main ports of Los Angeles and Long Beach. Once they are offloaded, containers pile up on the docks unclaimed because of a shortage of truck drivers to haul cargo to warehouses. Businesses across the economy are struggling to hire workers at warehouses, retailers, construction companies and for other skilled trades. Even as employers resorted to lifting wages, labor shortages persisted, worsening the scarcity of goods.

The UK, Africa and Asia are experiencing similar problems with harbors backed up and stock sitting on the water for weeks. Added to that, Brexit calls for manufacturers and distributors to jump through new hoops to comply with import and export requirements – a massive change from the days when the UK was part of the European Union and the process for goods to be loaded onto trucks and transported across the channel was simple.

The obstruction of the Suez Canal in March 2021 is a prime example of inconsistent chaos. As one of the world's busiest trade routes, the canal obstruction had a significant negative impact on trade between Europe, Asia and the Middle East.



Solution: Agility across the supply chain

Supply chain visibility leads to many advantages for today's global businesses. It allows them to reduce complexity, improve communication throughout the organization, stay nimble and keep up with a complex regulatory landscape. It also provides a single platform where everything from early-stage planning to final delivery can be tracked and traced in real-time on a global scale.

These advanced insights mitigate interruptions that could affect supplier inventory levels and product delivery while simultaneously improving customer service, reducing costs and helping with regulatory directives.

The ideal ERP solution should contain built-in digitalization capabilities to create a truly agile supply chain with end-to-end visibility and collaboration across the entire ecosystem. For example, embedded AI capabilities provide real-time intelligence, actionable insights and recommendations that reduce disruption mitigation time from days to hours.

A robust, single-source solution of this nature which has been created specifically for manufacturing and distribution will enable organizations to optimize their supply chains, now and well into the future.



Challenge: Outdated, ineffective business models

Business models need to allow for a more flexible approach. The entrenched Just in Time (JIT) model, in which companies stockpile as few raw materials and parts as possible, buying what they need as they need it, only works when they can actually get what they need when they need it. For years, experts have warned that the global economy is over-reliant on “lean” production and faraway factories.

The new model needs to be a flexible balancing act. Manufacturers need to establish the optimal level of inventory, which means moving from JIT to more of a Just in Case (JIC) scenario. This involves maintaining large inventories to guard against out-of-stock situations, which are currently more prevalent than in the past.

The knock-on effect of the JIC approach is the increased cost of holding large inventory as well as concerns about size and resource constraints in warehousing operations. It should, however, make manufacturers more flexible. The key to success here is understanding the peaks and troughs in customer demand.

With the constant battle against fluctuating supply and demand, supply chains around the world are accustomed to functioning in consistent chaos. However, at present we have a situation of inconsistent chaos, and this highlights the need for agile, flexible supply chains.

Solution: Executing with a single source of the truth

To solve the challenges of outdated business models, manufacturers and distributors need business strategies which are aligned with each unique business case. In addition, a digital roadmap needs to be devised by a group of representatives who understand the unique pain points of the business.

Having full visibility across the supply chain as well as their own organizations helps manufacturers and distributors take back control of their operations. This capability is enabled and enhanced by an ERP solution customized to meet their specific operational needs.

As we have seen, the ability to forecast and manage supply and demand is critical for today's global supply chains. An ERP solution which is integrated across accounts, sales orders, purchase orders and more allows manufacturers to build their procurement requirements based on the demand in the system. Forecasting tools provide a better understanding of future demand and can be used in purchasing, planning and strategy.

Dashboards are also available to identify Key Performance Indicators (KPIs) and Result-Based Indicators (RBIs), enabling more timely and accurate executive reporting and making it easier for decision-makers to drive the business in the areas that will deliver the best results. For example, knowing how specific products are performing – or underperforming – helps to avoid holding stock of those less productive items so that the business can concentrate on more profitable product lines.



Challenge: Impaired supply chain visibility

Supply chains are becoming increasingly complex, especially at the global level. Working with multiple third-party logistics providers often impairs supply chain visibility, leaving companies struggling to gather the necessary data to resolve exceptions, take corrective actions and improve processes.

Across the supply chain, manufacturers and distributors are experiencing an increased need for collaboration across the ecosystem, including suppliers and customers. Many businesses are not yet geared to engage in real-time communications.

This has introduced a need to increase levels of communication, transparency and visibility, both up and down the supply chain. This communication plays a vital role in understanding what challenges are being experienced at all levels of the supply chain. Equally important is effective communication within the business, particularly between sales, inventory and manufacturing.



Solution: Engage, communicate and connect through a supply chain portal

A supply chain portal is a platform for buyers and suppliers to connect with each other and exchange data. Supply chain portals are recommended to any multi-supplier company as they improve and speed up the purchasing and production process. It's an excellent means of resolving communication issues.

Supply chain portals also facilitate capabilities such as touchless ordering, removing the need for staff to key orders into the system. Instead, the orders are automatically updated on the system via the portal.

The ability to engage, communicate and connect with colleagues, suppliers and customers through a supply chain portal enables manufacturers to better and more efficiently serve the demands of customers. With instant access to suppliers, manufacturers have the control and agility they need to deliver on changing needs, ensuring shelves are stocked and ready to serve the market.



Challenge: Getting quality from data

Every link in the supply chain – manufacturers, distributors, suppliers – is facing the challenge of harnessing the vast amounts of data they've accumulated and transforming it into quality information that will contribute to the success of the business.

Companies need to know how they're performing against their competitors, and data can be used to produce benchmarks that provide that information. Internal benchmarks can be compared with the performance of similar-sized companies or those in the same vertical to see where improvements should be made. Without accurate, up-to-date performance data, it is extremely difficult for manufacturers and distributors to effect change and get buy-in from the workforce to facilitate that change and increase performance.

We are seeing a move towards using Machine Learning (ML) tools, but there are still vast quantities of data that fail to deliver the desired value and benefits. This urgently needs to be addressed so that the data can be relied on to make sense of demand levels and other risks in the supply chain. Optimizing this massive resource will deliver results organizations can act upon.

Solution: Transforming into a data-driven organization

Inventory forecasting, predictive analytics, Artificial Intelligence (AI) and Machine Learning (ML) are all vital in the quest to turn mountains of data into insightful information that can be used to streamline operations and improve the organization's competitive edge.

Using AI and ML, manufacturers can mine their data and insert trends – even short-term trends – to derive an output which would not have been accessible just three years ago. In conjunction with inventory forecasting and predictive analytics, an AI engine can be used for what-if analysis and to determine what needs to be done in terms of supply, how it will affect demand on third-party suppliers, the impact on warehouse resources and the knock-on effect for the production line.

Similarly, distributors can use these powerful tools to better understand their suppliers and maintain strong relationships as well as open and transparent communication. Details such as sales orders, purchasing, freight costs and miscellaneous charges are all available to help determine whether more orders need to be put in further down the supply chain.

For example, value-added food solutions company Ruprecht is using the AI solution built into its ERP package to focus on developing a predictive model which guides management in the decision-making process. Ruprecht also set up a data warehouse structure that gives it unlimited flexibility to pull data into the warehouse from its ERP solution and use it strategically. As a result, Ruprecht was able to weather the disruptions of the pandemic.

Challenge: Increase investment in technology

Supply chain professionals across all types of companies need to work through a myriad of different suppliers, platforms, systems and solutions to source and ship products to customers. According to the [SYSPRO 2020 Manufacturing CFO 4.0 Survey Report](#), CFOs see the scope of their business operations expanding over the next 5 years, with focus areas including expanding into new markets (67% of respondents) and increasing marketing and sales (68%). In addition, 51% plan to invest in machinery, robotics and technology automation, while 61% believe that predictive models supported by meaningful measurement and reporting are needed to ensure the business remains competitive.

Consider that between 2010 and 2020, e-commerce increased threefold. And during the first half of the Covid pandemic, it more than doubled on top of that. There's no doubt that e-commerce is going to increasingly drive supply and distribution chains.

The movement of goods is also subject to many handovers, which can create structural weaknesses in the supply chain. Like in a relay race, they represent an opportunity for failure, mistakes and delays. To achieve better outcomes, companies need to leverage digitization to integrate data, products and services.

In a world where customer centricity reigns supreme and internal efficiency is the primary metric on any performance indicator, the time to digitize and invest in technologies has never been greater.

Solution: Building a digital roadmap

Most supply chains are still operated in a siloed, manual way. For example, a single container can require up to 100 document exchanges per trip, which adds to shipping costs. Digitizing these interactions by creating a platform or infrastructure where they can be more easily processed ensures that goods move more effectively through customs and across borders and comply with regulations.

An ERP solution is a key factor in any digital transformation journey. Built-in tools such as dashboards produce up-to-date Key Performance Indicators and Key Risk Indicators, alerting management to potential issues before they become a real problem.

In addition, an Optical Character Recognition scanning capability enables manufacturers and distributors to scan in purchase orders and sales orders as well as receipt documents, increasing efficiencies in entering orders into the system and working through the relevant processes.



Challenge: Aligning with the company's strategic goals

Manufacturers and distributors need a supply chain strategy that is reviewed regularly to make sure it aligns with the strategic goals of the company. Activities which are performed daily must fit into the strategy, which should also keep the customer central to operations. Manufacturers must spend time understanding their customers' expectations and define a supply chain strategy that delivers the expected value. This enables customer expectations to be met without the risk of providing services that the customers neither need nor want, or that doesn't enhance their levels of loyalty and trust.

For example, a distributor could focus on providing next-day delivery when its customers are satisfied with receiving goods in a three-to-five day window. This type of knowledge helps to offset distribution costs and increase profitability. Again, this endorses the need for meaningful data to assess and understand customer needs.

Once the business and supply chain strategies have been defined, manufacturers need to ensure that each of the activities along the supply chain – procurement, manufacturing, distribution and delivery – share the same goals and measure success in the same way. The corporate leadership must work to ensure this alignment.

An assessment of strengths and weaknesses will help to create a map of gaps to be filled. Once that has been done, an operational plan can be defined to achieve the desired capabilities and performance, either through continuous improvement or through a deeper supply chain transformation.



Solution: Empower users for quicker analysis, decision making and execution

Manufacturing and distribution companies increasingly need a vehicle that not only drives strategy throughout the organization but pushes actionable insights to users to follow through on that strategy. This approach empowers users with business-critical insights for quicker analysis, decision making and execution. Relevant and real-time data trends empower users to meet their goals, targets and deadlines with improved collaboration between themselves and others as well as the means to act quickly and proactively.

The data in a fully-integrated ERP solution can be leveraged to drive business growth and increase agility, particularly when it incorporates an effective corporate performance management system to provide greater visibility into the organization's financial health, improving profitability and minimizing risk. The better the real-time and overall visibility of the company's finances, the better its chance of improved productivity, minimized risk and exposure, ultimately driving success.

The ability to automate the management cycle of financial consolidation and reporting, analysis, modeling and planning eliminates manual work that doesn't add value to the business and frees up the finance office to allow more time for analysis, which is far more valuable to the business.

By taking planning out of the finance office and embedding it within the operational aspects of the business, organizations can do a proper cause and effect on decisions made within the manufacturing process as well as external variables such as import tax and currencies.

Conclusion

With end-customer demand ever evolving and becoming more personalized and demanding, supply chains need to be fully aware of how to meet those fast-paced needs. They need a single touch point for a full view of available suppliers, operations in action and stock on hand.

There is so much to be optimistic about integrating data, systems and technologies and applying them to tomorrow's challenges. This will allow us to better connect and simplify the world's supply chains, which will make life easier and more affordable for both companies and consumers. The right ERP solution will help manufacturers and distributors take back control in the VUCA (Volatility, Uncertainty, Complexity and Ambiguity) environment of supply change management.

A fully-integrated ERP solution enables manufacturers to tackle the immense challenges they face by optimizing their business operations, meeting and satisfying customer demands, and increasing factory output.

Fit-for-purpose, modular ERP solutions give manufacturers and distributors control across every function of the supply chain to confidently manage, engage and optimize the manufacturing process to be agile, adaptive and resilient into the future.

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