The Future of the Supply Chain

Managing the impact of climate change, political uncertainty and digitalisation

VUEALTA

Anaplan
Partner

Foreword

Becoming more connected may be opening up fantastic new opportunities, but it is also exposing organisations of all sizes to adverse events they previously wouldn't have had to worry about. From extreme weather events, to political and market uncertainty and cyber-attacks, it doesn't matter where you are located – with many businesses requiring ever more complex supply chains, an event doesn't have to be particularly big for it to disrupt operations.

The Japanese earthquake, tsunami and Thailand floods in 2011, NotPetya cyber-attack of 2017 and increasing political uncertainty (including Brexit) are prime examples of how apparently localised events can have far reaching consequences for global supply chains.

It's not just the primary impact that these events have – natural or manmade – but the devasting cascading ripple effect throughout the entire supply chain.

At the same time, established players have to contend with competition from digital entrants, whether they're start-ups capitalising on low barriers to market entry, or the Google, Apples and Amazons of the world diversifying into new areas at a tremendous pace.

There are opportunities, however, for organisations agile enough to capitalise. Emerging economies hold immense potential, whether as new markets or sources of production. Yet they also hold significant risk, from local political uncertainty to requiring a longer supply chain.

Added to this is the complexity of modern logistics. Interconnected, multi-layered and often unwieldly, a modern supply chain can cover half the world, taking in primary, secondary and tertiary manufacturers and producers, freight companies, ocean terminal and airport operators, along with dozens of parties in between.

It all adds up to more links which can be broken, more pieces which can be disabled and the potential for more disruption by outside forces.

To understand how businesses were planning to insulate their supply chains from these challenges, we spoke with UK and US-based companies to get their views on where they saw the opportunities and risks and what steps they were taking to mitigate negative impact. In doing so, we found that almost 90 per cent of businesses have had their supply chains disrupted in some way in the last five years, a shocking figure which underlines how under threat these networks are.

In this report, we'll explore exactly how exposed they are, what lessons they learnt and what businesses need to be aware of when managing a supply chain in the modern era.

Ian Stone, CEO, Vuealta

Note on research: Vuealta commissioned Censuswide to survey 1,002 business decision makers in the US and UK, working in companies with over 250 employees and operating a supply chain in June 2019

Section 1: Business in the disruption era – opportunities and challenges

Traditional home markets of respondents

47%
UK

61%
US and
North America

OVER
1/5
BRICS
(Brazil, Russia, India,
China and South Africa)
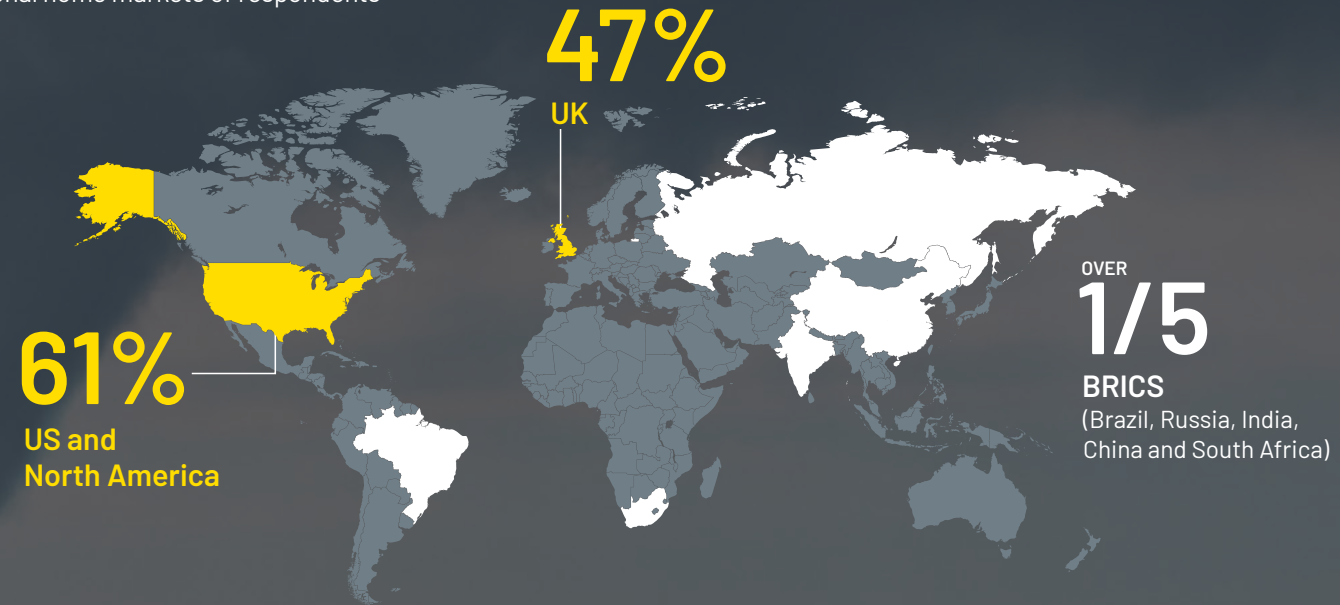
We are in the midst of unprecedented levels of disruption. Political uncertainty and trade wars are contributing to unstable economic outlooks around the world. Low barriers to entry are drawing both start-ups and digital giants to new markets, upending established players and raising customer expectations.

This forces traditional businesses to explore new approaches – that might be a new model or product, an overhauled way of operating or different geographies.

The latter certainly appealed to respondents to the Vuealta

study. Almost three quarters (74%) said they were looking to expand into new markets.

These could be new local opportunities, as well as overseas. While many identified their traditional home markets of US and North America (61%) and the UK (47%) as opportunities to expand, the BRICS (Brazil, Russia, India, China and South Africa), South East Asia and South America were all identified by over a fifth of respondents as potential new markets as well. Just five percent didn't see opportunities for expansion anywhere, suggesting that the majority of UK and US businesses are keen to grow.

While this sentiment should be applauded, intention and reality are two different things. Fifty seven percent cited either political or market uncertainty as a key factor holding them back from expanding into new markets, with 50% of UK companies saying their supply chains had been negatively affected by Brexit uncertainty in the last five years. This might be expected, but it appears Britain's decision to leave the EU was being felt by US businesses too, with 18% feeling the same as their UK counterparts.

It is not just political and market uncertainty making our respondents nervous about expansion, however; so too is the ability of their own supply chains. Just over half (51%) labelled the capacity of their supply chains as a key factor in holding back expansion, and over two thirds (69%) agreed that they needed to improve the efficiency of their supply chain. Clearly, in order for businesses in both the US and UK to feel confident enough to expand, they need to know that their suppliers and logistics partners can support them. Not an easy task when 28% of respondents had been affected by the failure of a single supplier in the last five years.

But is it purely a case of improving efficiency and identifying reliable suppliers to increase the chances of expansion success? Or are there other external factors that could have a significant impact on our respondents' plans?

Section 2: Managing the impact of natural and manmade disasters

Climate change is driving ever increasing numbers of adverse weather events. According to one study, these occurrences have increased significantly in the last six years. While a typhoon or earthquake in a far-off land may once have elicited sympathy but little else, nowadays the reality is very different. The 2011 Japanese earthquake not only devastated the country; it also disrupted the semiconductor supply chain (with Japan being responsible for manufacturing 35% of the global market), and had an impact on the production of major carmakers such as Toyota, Honda and Mitsubishi.

These may seem like extreme examples, but that doesn't make them rare. Over a quarter (27%) of businesses surveyed by Vuealta said they had suffered a negative impact in the last five years on their supply chain due to a natural disaster.

Then there's the manmade disasters. Being more digital increases the potential risk of a cyber-attack. According to a Linklaters report, the number of significant cyber-attacks has grown by more than 50 per cent in the last three years. This corresponds with the results of the Vuealta survey, which found that cyber-attacks were responsible for nearly a quarter of (23%) businesses' supply chain being negatively impacted in the last five years.

This in turn aligns with the impact of incidents such as ransomware attack NotPetya, which in 2017 claimed global logistics giant Maersk as one of its victims. With Maersk holding almost a fifth of the container shipping market, it's unsurprising to see a similar number of businesses' supply chains suffering from a cyber-attack.

Key factors to impact global supply chains in the last five years

28%
The failure of a single supplier

27%
Natural disaster

23%
Cyber-attack

22%
Political regime changes

22%
International trade wars

Despite these high-profile incidents, many businesses seem to be unaware of the disruption these external forces might have on their wider operations. Almost half of respondents (46%) believed their leadership team do not appreciate the potential impact that a natural disaster could have on their supply chain, with slightly more (47%) saying similar about leadership's view of cyber-attacks.

This lack of awareness goes as far as being unable to properly assess the damage should an incident occur. When asked how long it would take them to model the impact of a failure in their supply chain, 20% said it would take between a few days and a month, with 4% taking longer than a month and 5% struggling to model it at all.

What's causing this? The many parts of a supply chain can make it hard to see what's going on. In some sectors, businesses may not even be aware of some suppliers, depending on how far removed they are. It's therefore unsurprising that over a quarter (29%) cited IT systems, information and visibility as the weakest or most vulnerable points in their supply chain.

Yet if they were to have a failure, it wouldn't take long for the ramifications to be felt beyond their own business. Almost a fifth (19%) said that it would take at most a day before their customer base was impacted by a supply chain failure, with a further 46% suggesting it would take up to a month.

It's clear, therefore, that however a supply chain is disrupted, end customers are going to feel the impact sooner rather than later, giving businesses little time to fix issues. So how are businesses hoping to mitigate the impact?

Section 3: Planning the way forward

For those that have fallen victim to a cyber attack in the last five years, investing in technology (44%) was predictably the most popular solution to mitigate against future threats, followed by multiple supply options and alternative suppliers (33%) and stress testing and scenario planning (30%). Excess production (25%) and network capacity (26%) were also popular.

Victims of natural disasters were more likely to choose multiple supply options and alternative suppliers (37%) before investing in technology (35%), with a similar number selecting stress testing and scenario planning (30%) and local inventory buffers as an option (29%).

Across all respondents, there was an awareness of the threat of cyber-attacks, with 43% thinking their business should be investing in cyber security to help combat supply chain challenges and pressures. Next on the list, however, was planning technology (37%), suggesting that respondents understood that in order to implement the mitigating solutions mentioned above, they need to be able to plan effectively. This comes back to being able to prepare for both the positive and the negative – developing models which can be used for scenario planning and subsequently acted on, whether it's an unexpected rush on products or a disruption to the manufacturing end of the supply chain.

Having access to trusted, reliable data quickly was also critical – 44% said that real-time information across the supply network would improve supply chain efficiency and financial performance. Having that transparency is of immense value to supply chains – knowing there is a supplier facing challenges in one part of the globe allows businesses to react accordingly, whether it's updating customers with information or deploying alternatives to counter the potential impact.

Supply chains are emerging from a period of transformation, driven by "just in time" and "lean" manufacturing. But those capacity and inventory optimisations reduce their insurances against vulnerabilities – just as we are all facing highly complexity and volatility. The emphasis has to be placed on revolutionising the planning process, managing more complex networks with additional suppliers and doing so with more agility and foresight.

It is positive to see from these findings that many businesses understand that accurate data, detailed planning and transparency are critical to their ability to mitigate the impact of outside factors. What links it all is the concept of connected planning, in which technology draws on data and established plans to enable this transparency in the supply chain and people to make informed decisions, rapidly. By being able to access and collate critical data sources, businesses can reduce the impact of uncertainty and build realistic, actionable responses to all potential outcomes. As supply chains get more complex, it is only through connected planning that organisations can confidently expand into new markets.

Most popular solutions to mitigate against future cyber threats
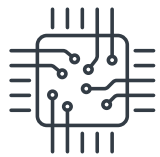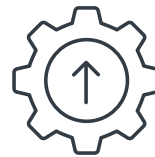
44%
Investing in technology

33%
Multiple supply options and alternative suppliers

30%
Stress testing and scenario planning

25%
Excess production capacity

26%
Excess network capacity

Conclusion:

Disasters happen. They are tragic when they do, but the real test of any organisation is how quickly and decisively they can respond.

The businesses we surveyed were honest about their challenges and what unsettles them. At the same time, they had a grasp of what they needed to do in order to protect their supply chains, their operations and, ultimately, their customers from long-lasting damage.

Preparing for and putting in place clear plans to combat these events can have a dramatic effect on mitigating both the short- and long-term impact. As part of this, being able to model what-ifs, use data to respond in real-time and have transparency across the supply chain are all essential elements for any modern business to succeed.

If businesses in the UK and US want to realise their expansion ambitions, they need to have that ability to capture, analyse and action intelligence as quickly as possible from across their supply chains. This can only be done by connected planning with the right tools and knowledge.

To find out how you could join those respondents modelling impact in minutes rather than days and connect your planning, get in touch with us here at Vuealta.

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