

The background features a dark blue gradient with a network of glowing cyan lines and nodes. Several stylized bar charts and data points are scattered across the network, suggesting a data-driven or supply chain theme.

dun & bradstreet

SUPPLY  
MANAGEMENT **INSIDER**

# SAFEGUARDING SUPPLY CHAINS TO SURVIVE AND THRIVE

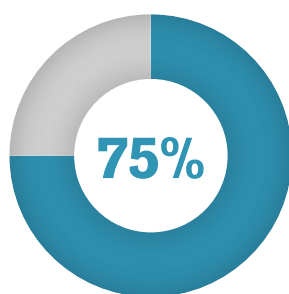
The importance of data  
to business continuity in a crisis

# Introduction

During periods of volatility, when the business landscape changes at speed, organisations can draw on data to better monitor their situation and make more informed decisions.

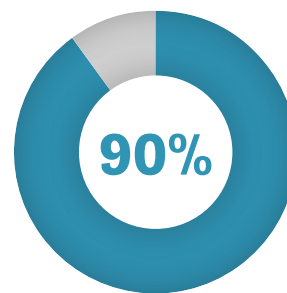
The extent of the human tragedy of the Covid-19 pandemic has resulted in millions of people infected with the virus and a significant number of deaths worldwide. In addition to loss of life, the global outbreak has had a devastating impact on businesses. Revenue has been hit, employment is down and shipments dramatically reduced.

Insight from commercial data and analytics provider, Dun & Bradstreet, shows that four major sectors account for almost **75%** of businesses in the impacted regions – services; retail; financial services; and manufacturing and construction with the latter the hardest hit. Shipping data also shows there's been a huge shift in the types of goods required in the impacted regions, revealing a focus on the needs of healthcare services – whether that be medical supplies specifically, or electronics and plastics for PPE to support the effort. In the meantime, demand for fashion, vehicles and furnishings has seen a significant drop.



**Four major sectors account for almost 75% of businesses in the impacted regions**

Some of the change has been prompted by shifting demands, while some has, of course, been caused by business operations being restricted by enforced lockdowns to contain the outbreak. Dun & Bradstreet data shows that, at the end of April, countries including the US, UK, Australia, much of Europe and parts of Asia had around **90%** or more of their businesses under lockdown.



**Some countries had around 90% or more of their businesses under lockdown**

The interconnectivity of global supply chains meant even those countries that had lesser restrictions at that time, such as China and Taiwan, were affected by the impact in countries they import from and corporate linkages within their own organisations.

Despite lockdown measures, many firms remained somewhat operational, with a continuing need for products and services. Some have succeeded in switching supply sources, while others have evolved their offerings to meet changing demand and requirements. The more savvy companies have used data to make evidence-based decisions to minimise risk and identify opportunities for new revenue streams.

In this report, produced in partnership with *Supply Management Insider*, we recommend the actions your business can take to maintain continuity and safeguard its supply chains against any future global crises.

# Information gathering

While uncertainty is inevitable in moments of crisis, data can help businesses to better protect themselves, their employees and their partners. Chris Laws, Head of Product & Strategy at business decisioning data and analytics firm, Dun & Bradstreet, says during such periods of volatility, organisations can make use of data to monitor their situation and make more informed decisions.

And there's a lot of information to draw on. Businesses now have unprecedented volumes of data at their disposal – an estimated 41 zettabytes in 2019, up from just two in 2010 – with IDC predicting global data volumes will reach 175 zettabytes in the next five years.

While data is powerful, it cannot speak and requires a skilled interpreter. As Richard Wilding, Supply Chain Professor at Cranfield University, puts it: “It is how companies analyse information to turn it into wisdom that keeps supply chains and businesses operational.”

Understanding data requires an enquiring mind, judgement and an awareness of bias. Laws suggests businesses apply a series of questions, such as ‘What predictions are you trying to make?’ and ‘What is being learned?’ to guide their thinking when using data.

Once companies have interpreted the information, they must understand the impact to their organisation and its supply chain.

Laws also emphasises the importance of questioning the source and whether it presents the full picture. “By triangulating data from sources that do not have the same origin businesses can better judge its accuracy,” he says.

Finally, focus on what it tells you. “We can make use of data by combining volume, velocity, variety and veracity to create value,” he adds. As data changes, businesses too must be prepared to react and adjust decisions accordingly.



# Risk management in a new paradigm

Supply chains are currently undergoing severe disruption, but even in the current climate, businesses can use data and analytics to better monitor and protect their operations.

Dun & Bradstreet helps businesses to avoid supply chain disruption, improve supplier and vendor performance, and lower costs using information and insights from its Data Cloud. The company has also been providing clients with Covid-19 specific data and frameworks to support them in the current environment.

It recommends four steps to getting the right data in place and how to use it to drive evidence-based decisions:

## Step 1

### Clean supplier master data

It is fundamental to start with a clean master data environment – whether that’s starting from scratch to build up a pool of relevant data or, as will be the case for most organisations, cleaning up what is already available. With this clean slate, organisations can progress to making risk-based assessments.

**“Traditional methods of risk assessment and continuity plans alone are no longer enough to cope with the challenges and pain points associated with Covid-19.”** Chris Laws, Head of Product & Strategy, Dun & Bradstreet

## Step 2

### Risk-based assessment process

Organisations will need to develop a risk-based assessment process for their supply chain that incorporates both onboarding third parties and ongoing monitoring. Companies will need to decide on their level of appetite for risk, then identify – and continuously monitor – a variety of risks that could impact productivity.

“Traditional methods of risk assessment and continuity plans alone are no longer enough to cope with the challenges and pain points associated with Covid-19,” says Laws, “and businesses now need to supplement their risk assessment processes with new considerations. For example, it’s unlikely organisations would have assessed the risk and added contingencies for employees not being allowed into the office for six months.”

Dun & Bradstreet has a long history of working with organisations and helping them to respond to crises like natural disasters and recessions. The company has built a new, Covid-19 specific framework based on core themes that can be applied to the current situation, and organisations are urged to consider and assess the following factors:

- **Company impact** – impact to the business across corporate locations due to proximity to the crisis
- **Network impact** – disruption to the business due to suppliers and business customers in their network being impacted by the disaster. »

The levers that will determine the above are: Location, industry and traditional assessments. Let's examine each in turn:

## Location

Mapping the location of all your suppliers is an important step. You need to know where they are and the different types of risk potentially associated with those locations.

Professor Wilding says, for example, that automotive company BMW proactively maps high-risk locations – such as flood plains, earthquake and wildfire zones – to inform its decisions over where suppliers are based. And well-informed companies knew if they had suppliers located in Wuhan or Italy and could act accordingly.

The locations of your own company offices, as well as regional business units, is also

important. In the recent crisis for instance, while most businesses have their corporate headquarters located within their respective countries (the current region of impact), close to 180,000 companies operating in the impacted regions are branches or subsidiaries of companies headquartered elsewhere. The countries with the highest number of links to impacted regions included France, Malaysia, Canada, Norway, and Mexico. "Business structure is also important," adds Professor Wilding. "Regional units empowered to make their own decisions could act in isolation at a time when more central decision making maybe required, for instance."

Organisations can look at actual daily updates of confirmed cases, corporate family structures, lockdown measures, foot traffic and mobility data to assess the location impact to their third parties. >>





## Industry

As shown earlier in this paper, there is a variance in the impact on different industries, but all have been impacted – whether positively or negatively.

Firms could think about empirically evidenced data such as payroll employment change by sector; government impact data; ability to operate remotely; reliance on the physical presence of customers; or foot traffic to assess the industry impact to their third parties.

## Traditional assessments

Organisations can then look at traditional risk or business health assessments, such as predictive failure or delinquency scores.

Adding to this, Professor Wilding says businesses should classify different types of risk – internal, external, demand-side, environmental, process, control risks and so

on – and examine each in turn. “Even when production goes up, there’ll be a demand-side risk that leads to oscillations in the supply chain,” he says. “Consider too the supply chain risk profile culture in the business – the design of it – and have transparency, intelligence and continuous monitoring over that with tools such as supply chain mapping on top.

“Risk appetite evolves over time,” he adds. “Appetite for risk today is very different to a few months ago.”

**“Consider too the supply chain risk profile culture in the business – the design of it – and have transparency, intelligence and continuous monitoring over that with tools such as supply chain mapping on top.”** Chris Laws



## Step 3

### Monitor your full supply chain

“Next,” says Laws, “it’s important that businesses maintain a complete view of their supply chain health by monitoring the full supply chain and the risks associated with both first- and second-tier suppliers to safeguard against both direct and indirect impact.”

Many global businesses are dependent on direct suppliers within Covid-19-impacted geographic regions, but indirect suppliers can also cause a huge disruption to supply chains, through lack of available parts in production or not being able to reach direct suppliers.

Therefore, it’s important to look at the supply chain as a whole and assess whether indirect suppliers sit within impacted regions. The UK is one of the top five countries that buys both directly and indirectly from impacted regions.

Professor Wilding says continuous monitoring and intelligence is key. He suggests supply chain professionals also make use of freely available information, such as LinkedIn, Twitter and other feeds to supplement their data sources, then aggregate and analyse their information.



## Step 4

### Understand and identify alternative suppliers, revenue streams or distribution models

Finally, organisations can look to identify alternative revenue streams or ways of operating. In the short term, they can use data to identify alternative suppliers in less-impacted regions of the world. This enables them to diversify their supply chain and reduce dependencies on any one supplier within a geographic region. “All of this is critical for protecting the business at a time when supply chains and national economies are more connected than ever before,” says Laws.

Businesses may also consider providing a new product or service line for consumers or business clients, or highlighting an existing product that fills a gap. For example, increased demand for medical-related products, prompted fashion houses to commit to making protective wear; manufacturers turned their industrial expertise into making ventilators; meanwhile a number of breweries began producing hand sanitiser. “Organisations can use data to identify where there is a need and follow it if their businesses and supply chains are set up to do so,” says Laws.

Many businesses have also had to become 100% digital since the UK lockdown, while others have had to consider new ways to reach customers and enable online sales.

“We have seen large wholesale companies that usually serve schools and offices now switching distribution channels and selling directly to the public,” says Laws. “Supermarkets have also been using data to understand where they need to increase delivery capacity.”





Professor Wilding says to identify new revenue streams you must have a clear understanding of your organisation's capabilities: "If you understand it, you can leverage it. If you know, for instance, that your capability is rapid prototyping plastics for automotive, you can quickly change that to medical components."

As well as considering alternative suppliers, other distribution, shipping and delivery models need to be explored. "You may be dependent on air freight, for example," says Professor Wilding, "but that is now very expensive because nobody's flying. Some have seen an increase of as much as **600%** in costs. Such situations require us to think very differently about the physical network of supply chains."

He says the crisis will have highlighted to many that they need to examine the resilience of their supply chains. "Many have been caught out by being reliant on a specific resource, product or company," he says. "Consider designing your

products for the supply chain and what it can provide from where."

Some of that resilience will depend on the relationships businesses have (or lack) with their key suppliers, so building relationships across supply chains is essential. So too is the ability to be flexible, above and beyond operating in a manner which is lean and predictable. "You need elements of both but there is currently more emphasis on agility," says Wilding.

Chris Laws tells us: "It's unlikely the world will operate in the same way it did pre-Covid-19 for some time, if ever, so think about opportunities for the long term as well as the immediate future."

Professor Wilding agrees: "Things aren't going back to normal – there will be a new normal. Businesses need to understand their capabilities and how they can support new needs."



# Conclusion

Only with data can businesses make intelligent, evidence-based decisions. To do that, they need access to as much up-to-date and accurate information as they can.

This requires continuous monitoring and knowledge of who your suppliers are, where they are, where their suppliers are and any alternatives available. Third-party data providers such as Dun & Bradstreet can help by providing data and analytics like impact assessments that support organisations to make quick, evidence-based decisions.

**“For knowledge and wisdom you need information, and you can’t monitor or gather intelligence without the data.”**

**Richard Wilding, Supply Chain Professor,  
Cranfield University**



# Impact Index

Every natural disaster is different. Hurricane Maria in 2017, for example, destroyed physical infrastructure, while the coronavirus had no impact; but while the hurricane hit local suppliers, the pandemic led to global supply chain disruptions. Each situation will have its own effect and may require a different response.

The ideal solution is to be able to access bespoke insight designed specifically to assist with the immediate impact and initial few weeks of any crisis.

Dun & Bradstreet has developed an index to help customers with just this problem. An intelligent solution which is adaptable and will evolve as new and relevant data sources become available. A model which blends both

empirical evidence and qualitative measures – one that is dynamic and quickly reacts to changes in the characteristics of a business.

An assessment that both considers the impact on an individual business and the wider network of linked customers and suppliers, and does so in a globally consistent format that is easy and intuitive to understand, yet powerful and locally nuanced to deliver and drive meaningful actions and results.

Dun & Bradstreet's Covid-19 Impact Index makes a company and network impact assessment. It examines the effect on the business due to the proximity of any corporate locations to a disaster; and also considers and the network disruptions prompted by the location of affected suppliers or customers.

**Visit Dun & Bradstreet's Coronavirus hub to find out more:**  
[www.dnb.co.uk/coronavirus](http://www.dnb.co.uk/coronavirus)