Whitepaper

Dealing with supply chain disruption

A market trends & insight report

ligentia™

Foreword

Dan Gill
Chief Customer Officer, Ligentia

At Ligentia, our approach to business is fundamentally based around one characteristic. Insight.

Insight delivered by our technology. Insight about the world around us. Insight informed by our experience and expertise. But most importantly of all, insight from our customers about their businesses and their evolving needs.

We are committed to listening to them, because we believe it is only by putting customers first that we will deliver the most relevant solutions.

In line with our commitment, this year we invested in a market trends survey, commissioning a world-class research agency to conduct in-depth interviews with a cross-section of our customers and prospects.

We wanted to know how decision-makers are feeling in the face of unprecedented supply chain challenges, what pressures they face and what opportunities they envision for their futures.

So why now? Because, as our post-pandemic world takes shape, supply chain leaders are besieged by a whole new set of challenges. Just-in-case inventory hangovers from Covid, global inflation, a war in Europe, softening demand and a host of event-based disruptions to global supply continue to deliver blow after blow.

Today's reality is the on-going necessity to adapt and flex businesses, strategies and operations. This report illuminates how the businesses we engaged with are taking steps to build and maintain the supply chain resilience that is becoming a pre-requisite for long-term success.

We are grateful to all those who took part in our research, and hope that this report makes insightful reading for all those involved in ensuring supply chains run smoothly and sustainably.

Executive summary

What did we find?

- In Q2 '22, ongoing disruption originating from the pandemic was continuing to impact global supply chains, creating issues with diminished capacity and a shortage of much-needed raw materials for production.

- Sourcing from **China** was particularly problematic, due to continuing Covid disruption.

- The **war in Europe** didn't make the top three most concerning threats - at the time of the research, the impact on cost of inflation, exchange rate impacts and cost of direct sourcing from overseas was not anticipated.

- Whilst businesses desired a return to the kind of normality (or certainty) of supply chain planning and execution experienced pre-pandemic, most were adjusting to a view where on-going **volatility** was being embraced as the norm for the foreseeable future.

- In light of these challenges, businesses were relying on services where **value was added** and created via deep sector and location-specific expertise, and via technology that could provide visibility into their supply chain operations, end-to-end.

- Whilst all survey respondents recognised the importance of accurate and timely data for agile and effective supply chain management, actual **data capabilities** differed greatly. From manual in-house processes using basic spreadsheet data, through to integrated real-time tracking data across the entire supply chain, most businesses acknowledged that their need for both data and **automation** would only increase in the future.

- In addition to **international transit visibility, supplier and origin management** were the areas where digital tools were seen as having the potential to add most value, enabling decision makers to act early to mitigate the impact of delays outside of their control.

- Our respondents consistently rated **ESG** considerations as crucial to their supply chains and smaller companies felt themselves empowered to make progress against their sustainability goals. However, larger organisations often felt hampered by more complex operational challenges in their efforts to make progress in this area.

- We found that increasingly, today's organisations are expecting supply chain solutions providers to deliver a fully **end-to-end solution**. However, looking ahead and hoping to build more resilience into supply chain strategies and operations, companies are looking for more added value across the entire supply chain. Driven by technology automation, integration and ability to predict and model as well as manage, supply chain leaders also need partners with deep expertise to support them in realising recommendations and keep goods moving on the ground.
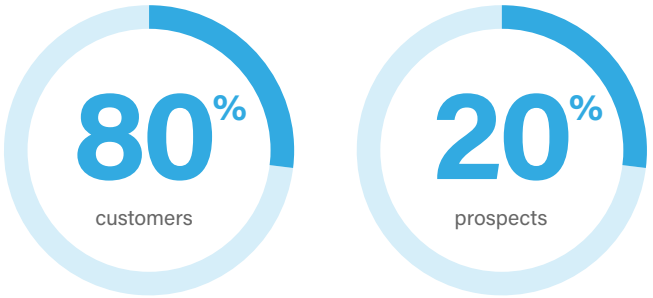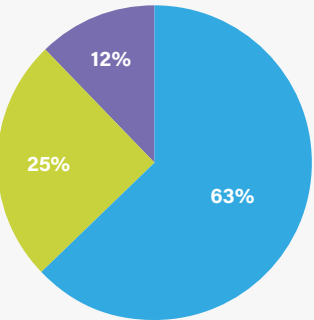
Our research: who did we speak to?

We wanted our trends research to be independent and unbiased. For this reason, we commissioned B2B International, a world-leading market research company, to conduct the field-work and analysis of insights arising.

In Q2 2022, B2B International conducted depth interviews with 24 senior supply chain decision-makers. 80% were Ligentia customers and 20% were prospects.
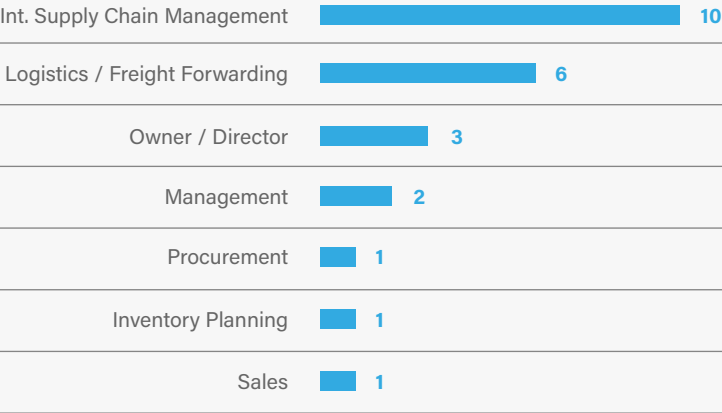
B2B International

Senior supply chain decision-makers:

80% customers

20% prospects

International logistics:

- 63% Ocean
- 25% Land
- 12% Air

■ Ocean ■ Land ■ Air

*Average %'s stated

Department:

Department	Value
Int. Supply Chain Management	10
Logistics / Freight Forwarding	6
Owner / Director	3
Management	2
Procurement	1
Inventory Planning	1
Sales	1

Number of sites across globe:

1	2 - 10	11+
3	6	15

Number of employees:

1- 249	250 - 999	1K - 4.9K	5K - 24.9K	25K+
5	7	3	7	2

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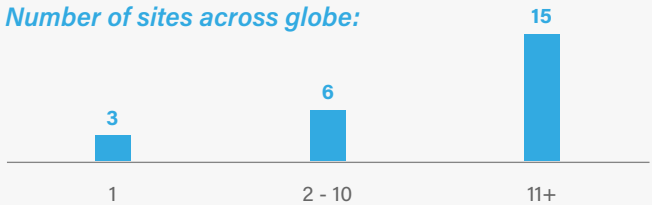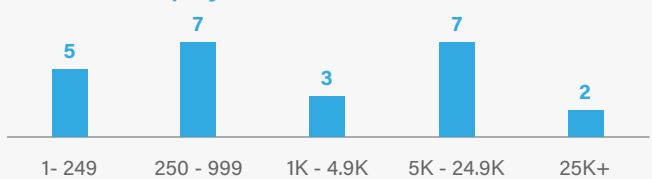
Introduction

Supply chains in the age of disruption

It's hard to avoid the tangible effects that supply disruptions can have on our daily lives.

When we read the news. When prices of goods are rising. Or when we check our savings…it becomes very clear that we are living in an age of profound disruption. One that is inextricably linked to global supply chains.

Covid-19, was a major trigger to problems that have been experienced the world over. But the pandemic isn't the only recent event to have caused issues.

Soaring oil prices, Brexit, the crisis in Ukraine, and the blockage of the Suez Canal, all came hot on each others' heels, providing significant disruption to the flow of goods around the world.

According to Morgan Stanley's Michael Zezas (Head of Public Policy Research and Municipal Strategy) one of the less anticipated domino effects of Covid was the pent-up consumer demand: "The most important trigger of supply chain disruptions, in our view, has been a surge in demand for physical goods as a result of record stimulus programs and a sharp shift in spending from services to consumer durables."[2]

Whilst pent-up demand created pressures as we emerged from lock down, these have been superseded by global inflation, various fiscal crises and geo-political conflicts all fuelling market volatility and reshaping the dynamics of cross-border trade.

Currently, the pendulum of consumerism is swinging the other way. With demand softening and many organisations carrying excess inventory as a hangover from 'just-in-case' sourcing strategies, making sense of today's trading conditions is a planning headache that simply refuses to go away.

So, what does this age of disruption mean for our customers? And how can they achieve the resilience that they need to grow their businesses during such turbulent times?

Our survey suggests that the answer to achieving supply chain resilience lies in achieving the right combination of data, technology and outsourced expertise.

Global supply chains have been pushed to the brink over the last two years, revealing the shortcomings of a complicated system that impacts everything from computer chips to toilet paper. These disruptions don't just affect daily life— they reverberate across the global economy.

Global Supply Chains: Risks, Repair and Restructuring, Morgan Stanley[1]

[1] https://www.morganstanley.com/ideas/supply-chain-disruption-outlook
[2] Ibid.

Supply chain challenges

The issues highest on our customers' agendas

Unsurprisingly, in the aftermath of a pandemic – but very much still in the middle of other seismic global shocks – the biggest concerns were around disruption to operations.
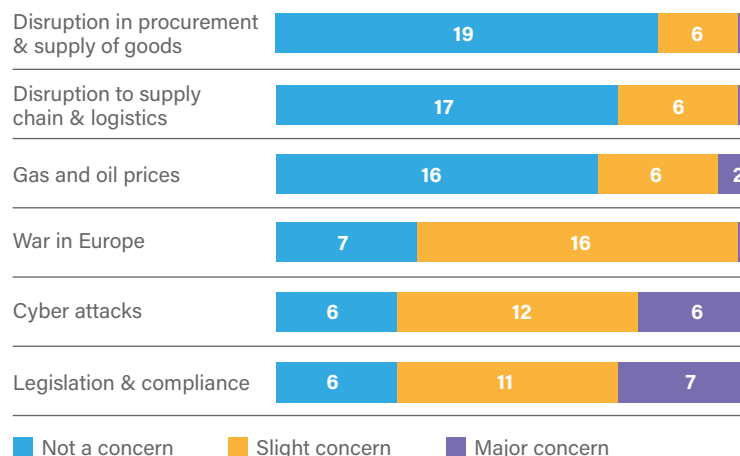
In fact, more than 70% of businesses ranked disruption as a major concern.

'Disruption in Procurement and Supply of Goods' and 'Disruption to Supply Chain and Logistics' were the two most common responses when our customers were asked to rank their concerns. Other factors included cyberattacks, gas and oil prices, the war in Ukraine and legislation and compliance.

Such responses suggested that businesses were lacking confidence to plan or make long-term decisions on their supply chains due to gaps and shortcomings in the information that they had at their disposal. While they acknowledged that in today's unpredictable climate, preparing for delays, stock shortages, route disruption and other factors was critical; an information vacuum led to many feeling overwhelmed and requiring support from a trusted partner to help navigate their issues.

Knock-on effects from concerns about disruption meant that businesses were tending to hold more inventory, while looking very carefully at where they sourced materials from.

Most concerning threats to business

Threat	Not a concern	Slight concern	Major concern
Disruption in procurement & supply of goods	19	6	1
Disruption to supply chain & logistics	17	6	1
Gas and oil prices	16	6	2
War in Europe	7	16	1
Cyber attacks	6	12	6
Legislation & compliance	6	11	7

■ Not a concern   ■ Slight concern   ■ Major concern

Opinion was divided on when supply chain issues will improve

The majority said by the end of 2022, or the end of the next Chinese New Year. Some thought it will take a minimum of 12 months for any change to occur, while several believed that we would never return to pre-pandemic levels.

We don't have the confidence level in our supply chain now. So when we're looking to book stock for the next year, we're having to do that further and further ahead to allow for delays and lags in the supply chain, so that we have the stock to sell at the right times in the right places.

Digital solutions

How can they make customers' lives easier?

The potential for disruption makes visibility and digital expertise the two capabilities that would be most valued by most organisations.

Consumers know the value and reassurance of being able to track goods from the moment they press 'Buy' to the time of delivery.

But for businesses it's about more than just reassurance. It's about gaining the agility and flexibility to be able to make decisions, change plans and recalibrate operations when things go wrong.

As one respondent put it: "It's not just visibility, it's transparency as well. So that we can see every single aspect, every touch point, and if there are delays, we're seeing where they are. It's allowing everybody to be accountable without pointing fingers and blaming everybody else."

Visibility at SKU level and intelligence on the arrival of goods requires data integration. Without it, the businesses we surveyed felt themselves to be at a disadvantage, as they were having to make decisions based on poor, often fragmented intel.

With integrated data, respondents could envisage benefits from modelling alternative scenarios in case of disruption.

Customers saw the biggest potential wins from a digital tool "that gives you the end-to-end view from PO management right through to delivery at destination. It's moving it from a PO being raised, right through to delivery at destination, and it's the one place to go and get complete visibility and transparency."

However, our research also highlighted that the full positive impact of high quality data was unlikely to be fully realised without deep expertise to leverage insights and the geographical scale to be able to mobilise wherever customers operate across the globe.

I think the key question for us is where is the product? We should be able to get a view at the touch of a button.

Sourcing

Could a change of scenery be the answer?

We wanted to know what effects delays and rising costs had been having on customers' sourcing strategies.

While we did not hear of many large-scale changes having already been made, it was clear that several companies were at least in the early stages of taking steps to improve stock reliability. Such changes are clearly complex, and the shift would not be a quick one. But many businesses we spoke to were insistent that they _would_ happen.

Several customers were actively reassessing _where_ they source from. Near-shoring was being considered not just as a means of bypassing these supply chain issues but as a possible solution for boosting sustainability credentials.

Beyond that, organisations were also considering the most efficient and reliable mode of transportation. In many cases, reasonable surety of delivery was being prioritised over speed or cost considerations.

However, cost _was_ having a major impact. Increased costs of shipping, rising prices of raw materials and oil, have all resulted in organisations' operating costs increasing significantly. One respondent described those costs being passed on: "There's a huge financial cost burden of ocean freight, which means that we are having to take CPI price increases along with everybody else."

The inference from our survey is that customers need multi-modal solutions _and_ partner expertise to build solutions that are capable of flexing if and when market conditions change. Resilience was clearly considered to be a primary goal for many.

We're looking at where we were about 30 years ago when outsourcing was going offshore to the likes of North Africa and Turkey, before it went to the Far East. It feels like we've gone full circle.

Reassessing source

"So traditionally all of our outport's, so anywhere basically anywhere outside of China would transit through Singapore. We've now onshored that into Melbourne."

Executive General Manager for Supply Chain
Ligentix User

Reassessing mode & suppliers

"We've moved around and invested in new suppliers, so that they can hopefully adhere to what we require from a presentation point of view, but also from a delivery point of view."

Head of Distribution & Facilities
Prospect

Acting on sustainability

"We've actually opened up a factory in the UK itself to limit as I see the transport costs but the carbon footprint that the Far East Sourcing has such a huge impact."

Head of Inbound
Ligentia Customer

Sourcing

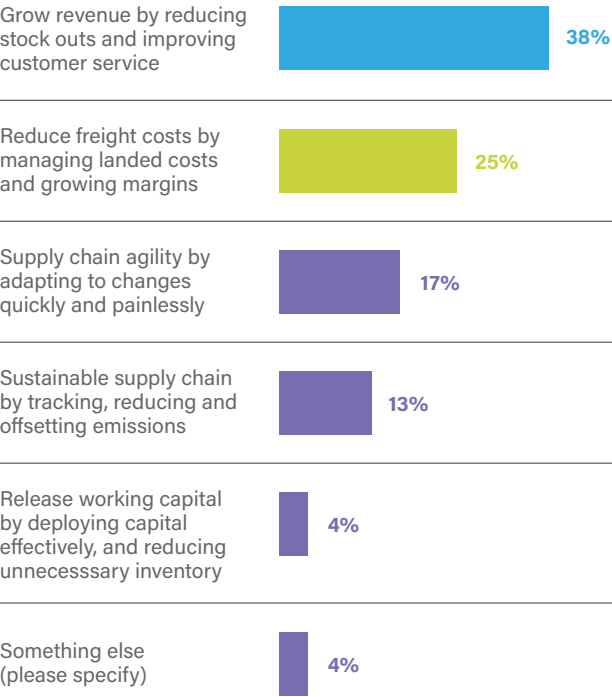## Could a change of scenery be the answer?

We were especially interested to gauge respondents' attitudes to the benefits of technology in the supply chain, and so we asked them which they thought would have the most strategic value to their business over the next five years.

Over 60% of them described two main benefits:

1. Growth in revenue caused by reducing stock outs and improving customer service

2. Reduction in freight costs, achieved by managing landed costs and growing margins

Additional benefits of technology were perceived to be: agility in adapting to changes quickly, tracking, reducing and offsetting emissions; and releasing working capital via reductions in unnecessary inventory.

Most concerning threats to business

Grow revenue by reducing stock outs and improving customer service	**38%**
Reduce freight costs by managing landed costs and growing margins	**25%**
Supply chain agility by adapting to changes quickly and painlessly	**17%**
Sustainable supply chain by tracking, reducing and offsetting emissions	**13%**
Release working capital by deploying capital effectively, and reducing unnecesssary inventory	**4%**
Something else (please specify)	**4%**

63%
of all respondents chose one of these benefits of technology

Sourcing

Could a change of scenery be the answer?

We showed our respondents a typical supply chain journey, beginning with Sourcing and finishing at Inventory Management, but it was during these four central steps of the journey that they believed digital tools could offer the most value.

PO management

Up-to-date data helps organisations hold conversations with their suppliers and customers

Access to additional information via technology makes conversations easier and allows the organisations to secure tenders

Technology helps to automate routine transactions and reduces labour costs

Supplier & origin management

Technology enhances supplier and origin management, delivering enhanced visibility

Additional data allows organisations to identify potential issues and solve them before the next stage

With automation implemented, data can be more easily accessed

International transit visibility

Respondents said that it is at this stage, that technology can add most value to their supply chains

Up-to-date information and full visibility allows them to manage customer business needs and expectations more effectively

The ability to share data with individuals outside of their organisation also adds value

Delivery at destination

The complexity of the delivery stage requires additional technology to help organisations

Particularly, the customs element of delivering goods is a way in which technology can enhance the supply chain journey

We're looking to increase revenues and ensure we keep our customers happy. At the end of the day, they're the most important part of the business. Keep your customer happy and you'll have a successful business. I think having stock available for them to get stock whenever they require it is our number one priority.

Data

A story in three parts

Customers view **visibility**, **automation** and **integration** as an interdependent mix in the technology-driven supply chains of the future.

From the responses to our questions on the theme of technology, a clear picture emerged of the three attributes that customers were most commonly seeking: visibility, automation and integration.

But while each of these attributes is valuable in its own right, it is only when all three are each present that customers can gain true advantage from real-time data for decision-making that helps them rise effectively to today's challenges.

We found visibility was the number one attribute organisations would like from their tech. When combined with automation, visibility can be delivered as actionable insight - an 'in the moment' route to enabling better supply chain direction.

Without automation, (ie when manual data pulls and manipulation is required), visibility data does not deliver the same benefits.

In our survey, integration was not specified as frequently as automation or visibility but was nevertheless crucial to effective supply chain management. Once data has been automated to provide accurate and timely visibility, integration into a company's existing systems means that it can more easily be collated, manipulated and shared.

While each of the three attributes are in high demand, they are dependent on each other to achieve maximum supply chain efficiency. Having complete, timely information is the key. And then being able to push data into existing enterprise systems to maximise its potential is where the biggest wins are to be had.

It's about reducing manual intervention and resource. Visibility, 'one view of the truth' and the data analytics and reporting side of things is becoming very important for us.

Data

A story in three parts

Businesses are looking for automation first, followed by intelligence that will help them make decisions quickly (in real-time).

However, they understand that both need integration, so this is important when choosing suppliers.
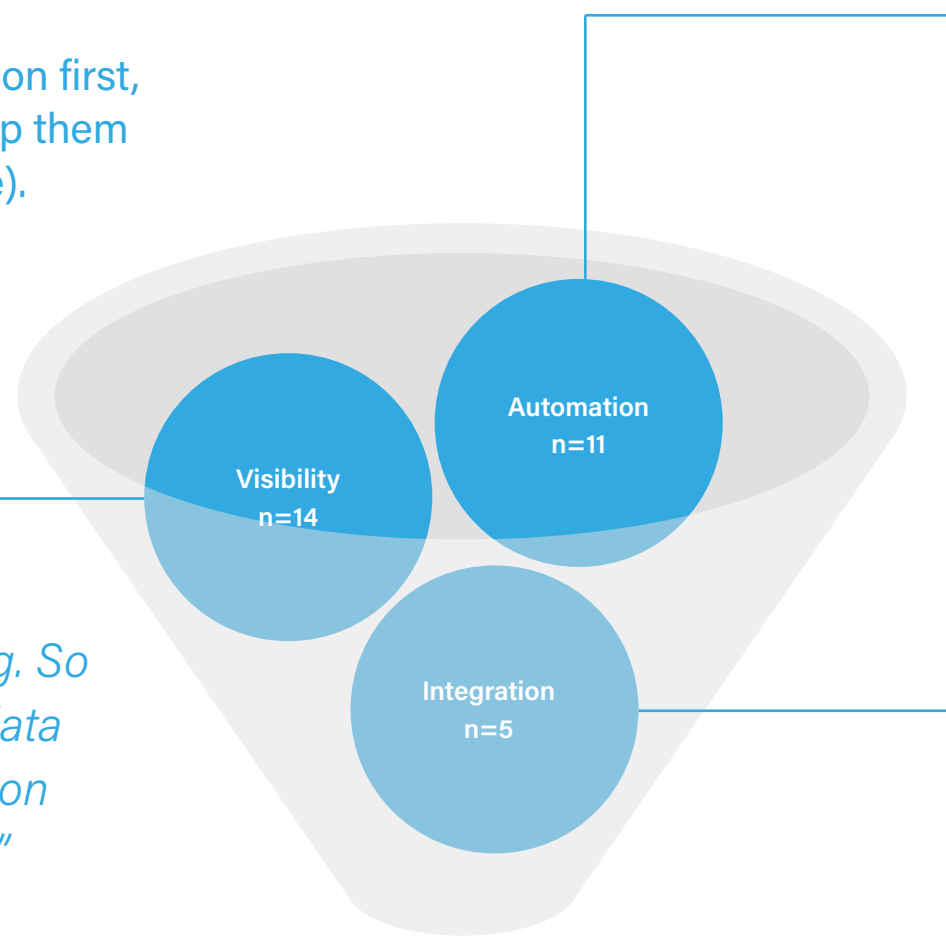
"There's a lot of Excel spreadsheets floating around. So having some automation in the process would make all the decisions a lot smoother."

Managing Director, Head of Key Accounts & Sales
Ligentia Customer

Visibility
n=14

Automation
n=11

Integration
n=5

"Visibility and decision making. So if you can get visibility and data at the right time, your decision making should be correct."

Retail Logistics Manager
Ligentia Customer

"Certainly for us and where we are right now, integration of existing systems is absolutely the key. The key one for me."

Head of Inbound
Ligentia Customer

Resilience

It's about more than just data

All companies seek resilience in the supply chain so that they can cope when problems arise.

Our survey shows organisations on a continuum of maturity in terms of their ability to harness data and build resilience.

We found three types of company:

STAGE 1

1 office. Reliance on overland transport, importing from China into EU and UK.

Un-monitored

Companies that are not actively monitoring supply chain data beyond simple reporting and compliance.

For these organisations, disruption to their logistics – and issues such as rising oil and gas prices – are major concerns.

What they need are tools to help them manage inventories and monitor prices – particularly when there are delays.

Data centralised in one place rather than held manually in spreadsheets can deliver major benefits.

STAGE 2

10+ Sites. Mainly ocean freight, plus some land and air.

Monitored

Companies that do monitor supply chain data tend to have lots of shipment data. However, without integration, their view of supply chains is often fragmented.

With only partial visibility of shipments, these organisations may find it difficult to use their data to drive decision-making.

These companies still regard disruption as a major concern, particularly in the current climate.

They need simple, visual intelligence on when goods will arrive. This may mean integrating internal data such as purchase orders with data from their freight company into one platform. Replacing largely manual processes, the introduction of better technology will simplify ways of working, reduce knock on operational impacts and save time.

STAGE 3

10+ Sites. Mainly ocean freight, skew towards air and less road.

Monitored and modelling

Of the companies we spoke to, the ones best-placed to deal with today's challenges are those who monitor *and* model.

Their data is linked or in one place, giving them visibility of shipments with SKU-level detail across either part – or the whole end-to-end - supply chain. For these, intelligence drives better real-time decision making.

Our survey showed that these companies expressed fewer major concerns about the disruptions they face.
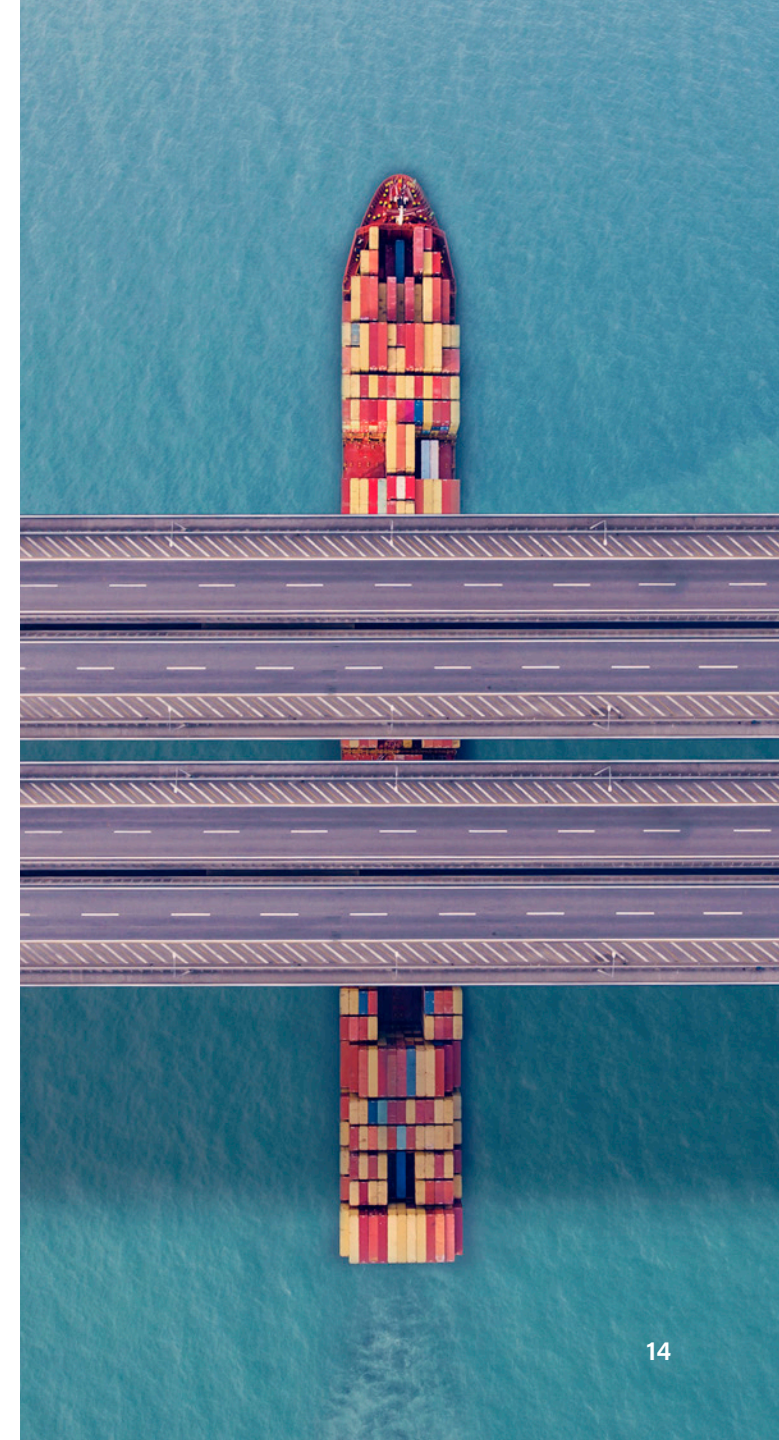
Resilience

It's about more than just data

Our research revealed a fourth category (*Model and solve*) to which respondents aspired, but none claimed to have achieved. We believe this to be the future for technology and data in the supply chain. This category would be companies with the capability to be both modelling and solving supply chain challenges in the present and pro-actively for the future.

With data harnessed to help them assess and plan; the next natural step is to be able to make faster decisions, based on real-time data that enables modelling for cost, delivery scheduling, and carbon emissions.

For organisations reaching this category, one system would hold all data, provide automated reports and trigger decision-making alerts. In this category, technology would be sufficiently smart to make recommendations (likely requiring AI and machine learning) to empower genuinely data-driven optimisation of supply chain planning and management to pro-actively build the resilience required in such unpredictable times.

Those able to monitor and model are less concerned by disruption

% saying issue is a major concern

- Stage 1 (n=5)
- Stage 2 (n=10)
- Stage 3 (n=9)

Issue	Stage 1	Stage 2	Stage 3
Cyber attacks	20%	10%	44%
Gas and oil prices	80%	70%	56%
Disruption in procurement & supply of goods	60%	100%	44%
Disruption to supply chain and logistics	100%	90%	56%
Legislation and compliance	20%	30%	22%
War in Europe	40%	20%	33%

Sustainability

More than just 'talking the talk'

We also wanted to find out the progress that customers are making on their journey towards becoming more sustainable businesses.

The United States Environmental Protection Agency calculates that the supply chains of businesses often account for more than 90 per cent of their greenhouse gas emissions, if overall climate impacts are considered[3].

Little wonder then that our survey found most respondents have supply chain sustainability on their radars.
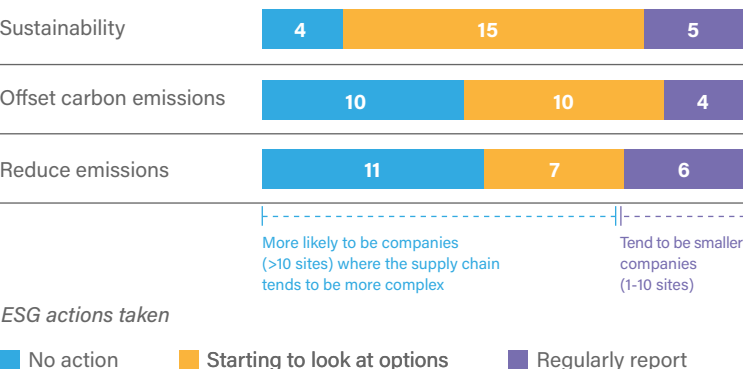
But while many are talking the talk, a much smaller number are walking the walk, with few making genuine steps towards proactive management of emissions.

We found that those feeling most confident in their progress were primarily smaller businesses, operating between one and ten sites. Their relative lack of organisational complexity explained why these companies felt it easier to make progress than companies with over ten sites.

By comparison, larger companies were more likely to be marshalling robust data and using technology to monitor CO2 emissions – even if activating sustainability initiatives was more challenging.

We found that the sustainability journey was very closely linked to the organisation's overall technology journey with some players as yet un-monitored, some monitoring and others monitoring and modelling. However, moving from small steps to larger leaps in carbon emissions management required the ability to create comparable models by mode and route, factoring in other variables – features that are were not considered standard within the supply chain tech stack for any of the supply chain leaders whose views we canvassed.

Most companies say they have started looking at the sustainability of their supply chain, but fewer are actively reducing emissions at present

	No action	Starting to look at options	Regularly report
Sustainability	4	15	5
Offset carbon emissions	10	10	4
Reduce emissions	11	7	6

More likely to be companies (>10 sites) where the supply chain tends to be more complex

Tend to be smaller companies (1-10 sites)

ESG actions taken

- No action
- Starting to look at options
- Regularly report

[3] https://www.epa.gov/climateleadership/supply-chain-guidance#:~:text=Supply%20chain%20emissions%20are%2C%20on,ReportExit%20Exit%20EPA%20website).

If you've got plans in place to try and offset your carbon footprint, you need to know what your carbon footprint is in the first place for each journey, and at the moment I don't have visibility of that.

Conclusion

The five key takeaways

Using structured research to get closer to our customers, adds weight to the understanding that we develop each day through our conversations and interactions with them.

It informs the steps we are taking to develop our business for the future and it helps unlock ideas and innovations that are aligned with our customers' evolving needs.

Thanks to their insight, we see five key takeaways from our market trends survey:

- Technology alone cannot solve today's challenges. But high-quality, accurate data providing visibility that enables real-time decision-making helps organisations build resilience in responding to – and planning to mitigate – disruption.

- Customers require strong, data-rich technology solutions, delivered by experts in problem-solving and solution-building who have the industry experience and local knowledge to know how to make things happen.

- Many customers crave more data integration to support end-to-end solutions with full visibility of the entire global supply chain delivered at PO/SKU level. With this detail and visibility, organisations benefit from shared accountability for supply chain across their organisations and with the vendors, carriers and partners that all play a role in making supply chain solutions run efficiently and sustainably.

- They are looking forward to a future where predictive analytics and automation will deliver next-generation support for scenario planning, strategic supply chain decision-making and transformation.

- And last – but certainly not least – our research qualified our understanding of where the organisations we serve are on their journey to achieving sustainability and ESG improvements within their supply chains. Despite being front-of-mind for many organisations, few have progressed beyond monitoring performance against sustainability goals and only a handful are actively managing KPIs and initiatives to actively manage their carbon and social impacts.

Why do companies partner with Ligentia?

- Our high quality team of experts who have a skill for problem solving, challenging the status quo and creating solutions that are innovative is what sets us apart.

- Customers value our can-do, make-it-happen approach to the supply chain. During the pandemic, we showed that we can be counted on to mobilise and deliver a response faster than our competitors.

- Understanding our customers' needs is at the heart of our strategy. We deliver greater flexibility and agility for them, with data underpinned by the item-level, end-to-end tracking capability that has always been at the heart of our proprietary technology, Ligentix.

- Intelligent data from smart systems provides the key to ESG. For Ligentia, supply chain innovation and best-practice has always gone hand-in-hand with the achievement of sustainability targets. But now, as the need for compliance ramps up, we are working with customers to deliver carbon-calculated supply chains and a host of off-setting options that we will be delivering to market in the near future.

Get in touch

1300+ colleagues across a global network. We work shoulder to shoulder with quality assured partners in every continent. So you've got breadth and depth of supply chain expertise with local knowledge on-the-ground.

✉ sales@ligentia.global

🌐 www.ligentia.com

About Ligentia

Ligentia is a global tech-enabled supply chain manager, with over 25 years' experience delivering more sustainable and agile supply chains for some of the world's most sophisticated retailers and best-known brands in manufacturing, healthcare and consumer goods. Our people are supply chain experts and problem solvers providing world-class sector and regional expertise across 45 operating locations with key hubs in the UK, Hong Kong, Poland, China, Vietnam, Australia and the US.

ligentia™