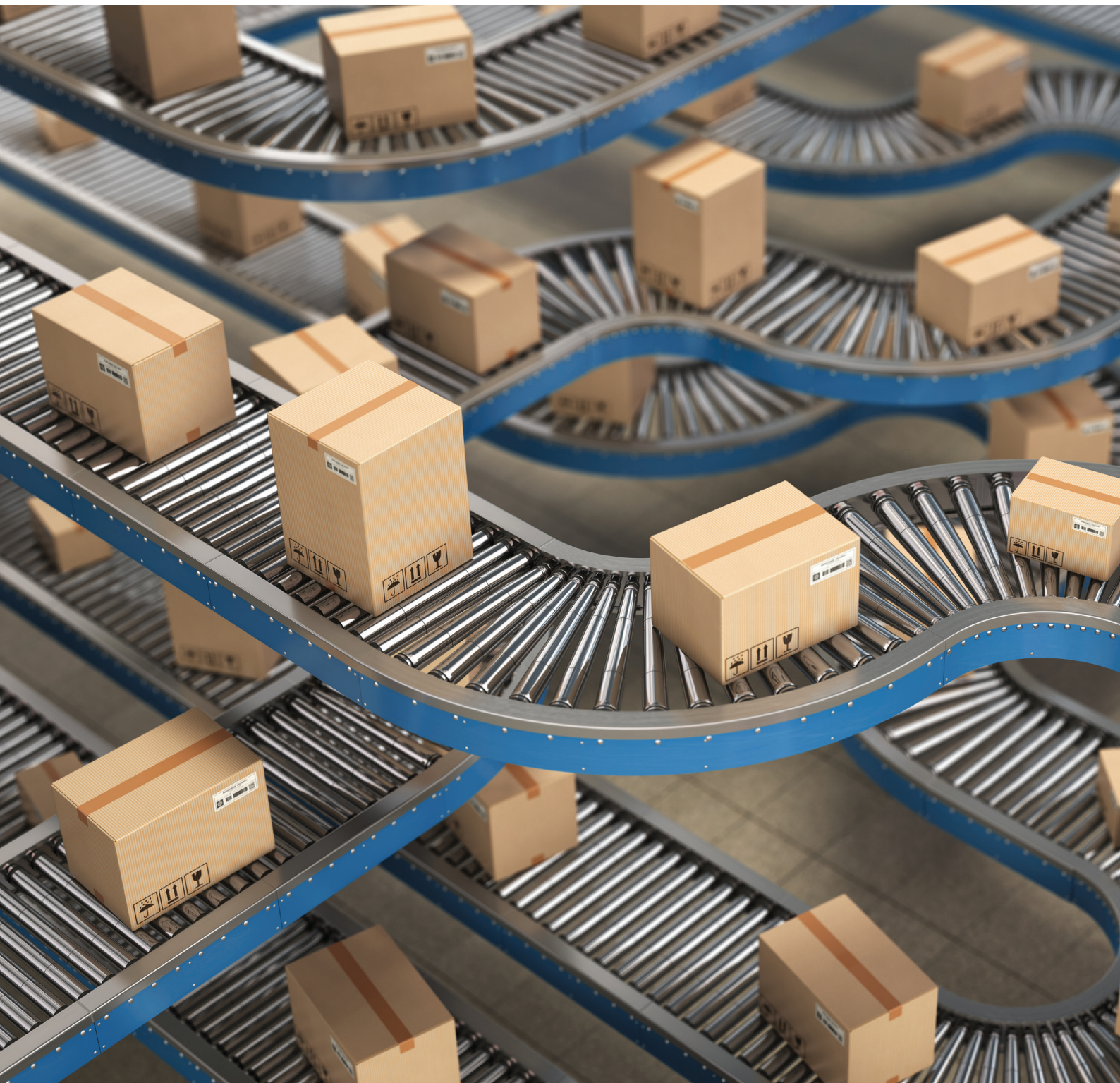

2020

State of Retail Supply Chain Report

Alex Hadwick, Head of Reports, EyeforTransport



2020

State of Retail Supply Chain Report

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Foreword

The delivery of a seamless, omni-channel experience for your customers hinges on the success of your planning systems. There is no margin for error here and yet - more often than not - the issues in planning operations stem from internal failings such as company silos that limit the effectiveness of communication or the use of legacy systems that can not handle the real time demands of today.

The market is transforming, with consumers driving the change. They want agility, flexibility, speed and convenience. Now, more than ever, an efficient supply chain will be the critical growth enabler for both retailers and manufacturers. Retailers must elevate supply chain capabilities to serve the needs of the modern consumer while efficiently managing the costs required to do so. Legacy planning tools like Excel spreadsheets and limited capability, traditional planning solutions are no longer suitable for solving today's complex supply chain challenges. The fragmentation of planning systems severely limits visibility, control and business potential resulting in the making of isolated decisions which are inefficient, have more potential for inaccuracy and adds unnecessary costs.

For forward-thinking retailers, it is essential to start thinking about how to use new analytics technology, not just to analyze and understand the past, but to make better decisions for the future. Retailers who are beginning to harness big data can orchestrate the flow of goods and services from all channel toward the consumer, and back, in real-time. Proper end-to-end integration of supply chain planning helps businesses improve in several core ways: Better forecasting will allow retailers to retain less inventory and reduces the resources and routes required to successfully operate supply. By doing so, this will lessen transportation costs and will improve workforce planning, ensuring that the right people are in the right place at the right time. One integrated digital planning solution which provides one version of truth is essential to stay on top of the competition.

Your desired level of supply chain planning maturity is probably closer, faster and easier to reach than you imagine. Ask yourselves where you want to be in the long term and develop a strategy according to that. Technological advances are then stepping stones to reaching this goal. There are plenty of new technologies flooding the market. The most important thing for you to realize is that technology will only enable change if it fits to your specific strategy.

The sooner you make the move, the sooner you will master your complex supply chain and reap the benefits of an optimized planning infrastructure to your bottom line



Camilo Gaviria
Vice President of Technical Sales, DELMIA
Dassault Systèmes

Introduction

Life is tough as a retailer right now, but the sector is hardly making life easier for itself as it struggles to keep up with technologies that can increase efficiencies, reduce costs and improve the customer experience.

From fast fashion, to same day delivery, to just-in-time production, the retail supply chain needs to be more agile, communicative and forward-looking than ever before. However, Excel remains the bedrock of most retailers' and manufacturers' approach to supply chain planning. System integration is a major struggle, as different players are forced to share files and do data entry manually in many cases.

No retailer or manufacturer that responded to our survey felt that their supply chain operation was extremely efficient.

Technologically, there is the need for huge innovation in the retail supply chain.

In order to deal with the major challenges we have identified in our survey of more than 400 supply chain professionals, which are forecasting, visibility, reaction capability and system integration, there will need to be a step change in capabilities. Players across the space must address tracking mechanisms, analytical capabilities, warehouse coordination, automation, and route planning, all of which will need a digital-first approach.

The need to digitize to cope with the increasing velocity of the retail supply chain is only going to grow. Among the top trends expected are more automation and growth in home deliveries and same-day deliveries. Companies will need to have strong oversight over their supply chains to both plan and order it effectively but also to keep customers updated on where their orders are. This is against a backdrop that has underlined that international supply chains can just as easily be disrupted by changes to tariffs and regulatory regimes as they can be weather events or material and labor crunches, underlining the need for adaptability, flexibility and forward planning.

Those that manage to address these are going to be able to turn their supply chains from burdens to competitive advantages. In an age where e-commerce giants bear down on almost every other operator in the sector, those that grasp the need for a smart, open supply chain that reaches from factory, to warehouse, to store, to customer are going to be the ones that thrive.



Alex Hadwick
Head of Research
eyefortransport

The State of the Retail Supply Chain



Forecasting

30.8%

Of retailers and manufacturers say forecasting is their greatest challenge

14.1%

Have an analytical system that can help them make judgements on the probable success and costs of their ongoing plans.

61.5%

Say Excel is their most used supply chain planning solution



Visibility

23.1%

Of retailers and manufacturers think visibility is their greatest challenge

16.2%

The percentage of companies reporting that their abilities to provide end-to-end visibility are poor or very poor, up from 5.4% in 2018

94%

Of European supply chain professionals said that they lack the right level of oversight



Agility

0%

Think they have an extremely efficient supply chain operation

34.6%

Of retailer think their planning systems have poor system integration

19%

Of retail executives report a fully digitized supply chain management process.

More coordination is needed across the retail supply chain, especially as the vast majority of retailers outsource some or all of their logistical support, with just 7.7% overseeing the entire operation in-house

The top expected trends are:

- **Improved consolidation across the supply chain 55.9%**
- **Increased home delivery 44.8%**
- **Greater automation 44.8%**



The Challenges of the Retail Supply Chain

Key Takeaways

- Forecasting, visibility, reaction capability and system integration are the largest issues for the retail supply chain
- Forecasting is the greatest challenge, rated top by 30.8% of retailers and manufacturers, as well as 27.5% of Logistics Service Providers (LSPs)
- Planning systems need to be improved to meet these challenges: 34.6% of retailers think their systems have poor system integration, 32.1% lack the ability to test multiple scenarios and 30.8% want automated planning and optimization.
- There is little progress in improving visibility: The percentage of companies reporting that their abilities to provide end-to-end visibility are poor or very poor, increased from 5.4% to 16.2% between our 2018 and 2019 surveys.
- Retailers are putting most pressure on logistics service providers to achieve accuracy of service (34.1%) and to keep service costs low (25.3%).

Speed and accuracy: These requirements are paramount and are putting huge pressure onto the retail supply chain. More than ever, the ability of players across the space to create a fast-moving supply chain that reacts to market changes and tracks products accurately, whilst keeping costs low, is a competitive advantage. Consumers increasingly want short delivery times and specific delivery windows, alongside tracking where their items are in the chain. Retailers need to transition to operate within these expectations, integrating their physical store networks to aid this shift and becoming more agile at forecasting demand for both the e-commerce and traditional environments.

Doing so is a huge challenge across the sector as technology changes at a feverish pace but the ability of actors within it to keep up continues to lag. Respondents to our survey report forecasting, visibility, reaction capability and system integration as major issues but are not installing the systems that can help with these issues widely enough, as we shall see in later chapters.

Recent political issues have also served to make coordination, planning and forecasting issues all the more pressing as well. Uncertain trading relationships and less policy stability have led to many re-evaluating their supply chains recently and seeking alternatives, such as a host of companies looking at alternatives to production in China, particularly in Southeast Asian economies. This is no easy task, however, and requires coordination across an entire supply chain from manufacturer, to shipper, to 3PL, to seller.

When many are operating on razor-thin margins, a strong structure both in terms of management and technology is going to be more vital than ever when it comes to coordinating the retail supply chain of the future but as our results show, there is much work yet to do.

The Major Planning Challenges

Retailers, manufacturers and their Logistics Service Providers (LSPs) all agree that there are several key issues in how supply chains are currently overseen and operate. These center around four issues: Forecasting; visibility; capacity to react to changes; and system integration.

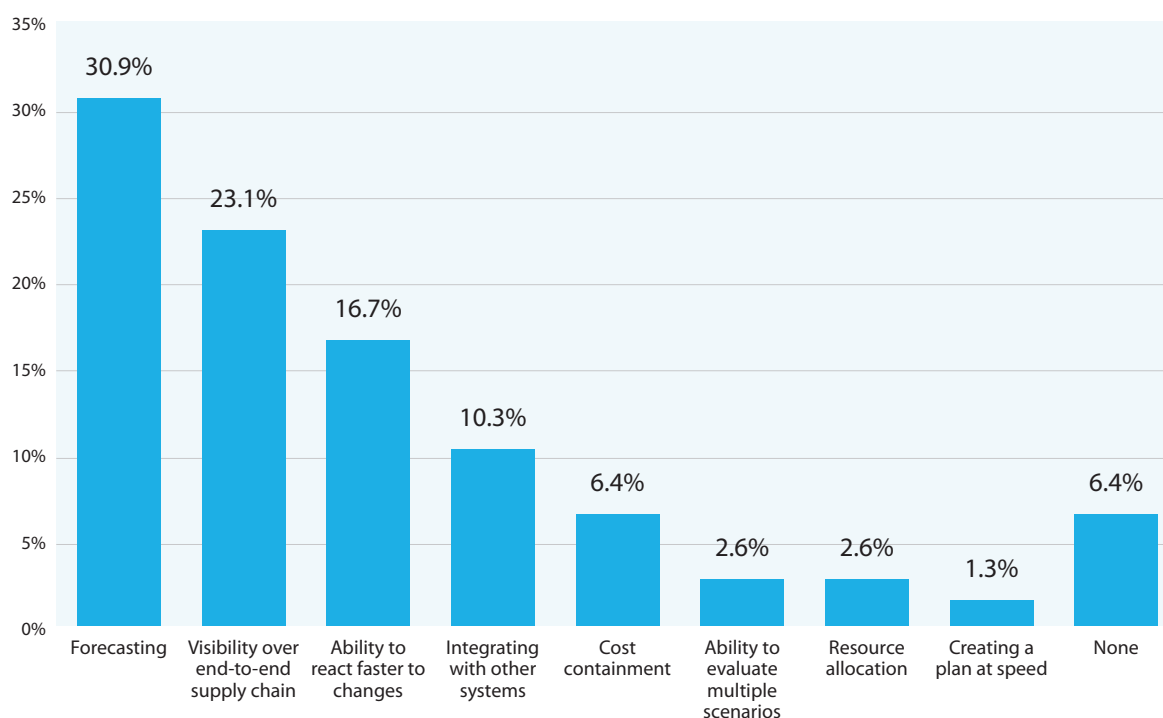
The top concern across the retail supply chain is forecasting, which 30.8% of retailers and manufacturers chose and 27.5% of LSPs also said that this was their customers' biggest challenge. This is followed by visibility over the supply chain (23.1%), the ability to react faster to changes (16.7%) and, finally, system integration (10.3%)

This combination shows a clear trend towards the need for deeper technological integration and digitalization, which can aid with the pressing concerns of having greater oversight of the logistics process and the ability to quickly modify it to best suit circumstances and demand patterns.

Interestingly, nearly twice as many LSPs said that keeping costs down was a major concern for their customers as did retailers and manufacturers (11% versus 6.4%). This likely illustrates that cost pressures are being passed down the supply chain, with shippers and 3PLs being asked to keep charges contained as far as possible, a situation that may be difficult to continue going forward due to low supply of labor and warehousing space, as well as changes to several key regulations that have come into effect or will do so in 2020.

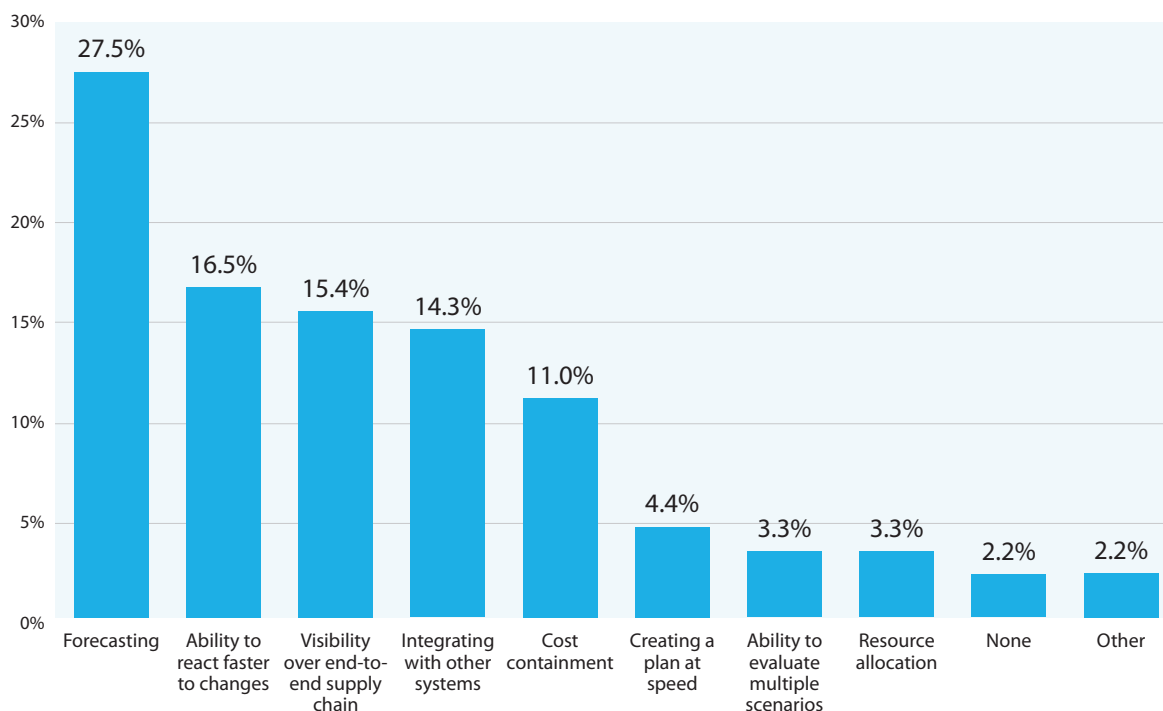
The primary challenges listed above are reflected in what retailers and manufacturers would like to improve in their current planning software, with the main themes, once again, integration, forecasting capability and agility, underlining how critical these key trends are.

FIGURE 1: TOP PLANNING CHALLENGE FACED BY RETAILERS AND MANUFACTURERS



Source: The Retail Supply Chain Industry Survey 2019

FIGURE 2: TOP PLANNING CHALLENGE FACED BY CUSTOMERS OF LOGISTICS SERVICE PROVIDERS



Source: The Retail Supply Chain Industry Survey 2019

VIEWPOINT: Why Forecasting Fails

Ian Perotto, Director SCM Execution, METRO AG

Forecasting frequently fails because there are too many parameters to be considered that influence a good forecast. There are promotions, weather, in-store actions, competitors marketing activities just to name a few, as well as the additional challenge of doing so with an assortment of several thousand different Stock Keeping Units (SKUs). Improvements in forecasting capacity can come from nurturing a cultural understanding (people and soft skills), IT architectures, and process redesign with a focus on customer benefit, whilst always focusing on the KPIs that define financial success.

There is a need for a better “end-to-end process understanding and IT support” inside the retailers themselves and linked with manufactures.

Thomas Stroo, Head of Logistics, HelloFresh

Forecasting is crucial for resource planning and your asset utilization ratio. If the forecast deviates from your actual numbers/orders you will create inefficiencies in your supply chain.

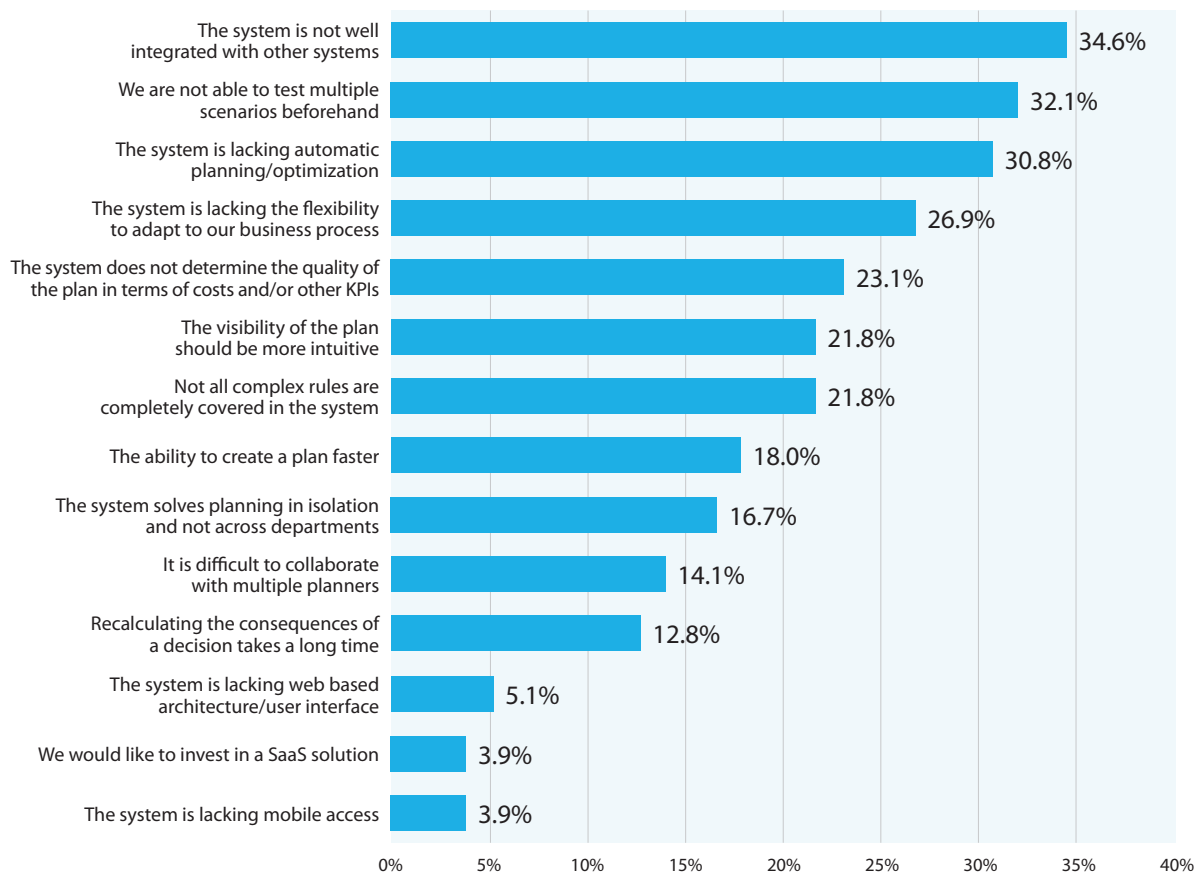
Brands can improve their projections by understanding their customer’s behaviour better through multiple data points and by aligning operational and marketing strategies well in advance.

The top gripe among retailers and manufacturers is poor system integration, chosen by a little over a third of this segment of our survey (34.6%). The next biggest areas for improvement were around the business intelligence capabilities of planning systems with: 32.1% keen to improve planning systems' ability to test multiple scenarios; 30.8% wishing for automated planning and optimization; 26.9% needing more flexibility; 23.1% looking for automated testing of plans against key metrics; and 21.8% wanting both more complex rules built into systems and to be able to view the entire planning process more easily.

Clearly, there are substantial gaps creating major roadblocks for retailers and manufacturers in building more intuitive, smarter planning systems and the ability of said systems to cope with new parameters and inputs. It appears there are major opportunities for technology companies to provide solutions to bridge the gap between retail supply chain planners and their ability to both understand what is happening on the ground in their operations and project ahead. Logistics and purchasing managers are crying out for help in their planning software, so they can understand how plans will perform, test scenarios and have Artificial Intelligence (AI) help them to improve their operations.

While the technological capacity to address these major issues in planning systems already exists, the bigger issue in effecting change is likely to be system integration across the supply chain and within organizations themselves,

FIGURE 3: TOP AREAS FOR IMPROVEMENT IN RETAILER AND MANUFACTURER PLANNING SYSTEMS



Source: The Retail Supply Chain Industry Survey 2019

where legacy technology may make porting data and processes extremely hard. Frequently, different actors lack the investment capacity, the will or the technological base to create the digital monitoring and feedback loops necessary to create an integrated digitalized supply chain that stretches from source materials to customer.

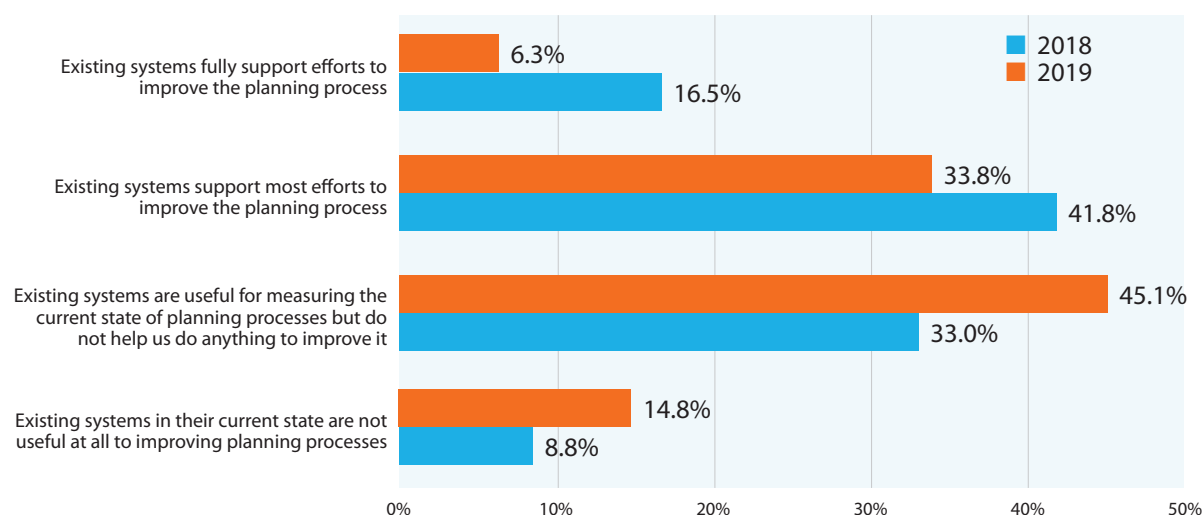
In our Supply Chain Technology Report 2019, which you can download for free [here](#), we found that business intelligence solutions were the biggest area of investment currently, showing how many in the logistics space are aware of the issues noted above and are investing to make the changes needed to have a better supported supply chain from a technology perspective.

There can be no doubt that as we progress, more players in the supply chain will be closely linked and technologies, such as blockchain, will mean that there will be far greater visibility and underlying data to support planning systems, but for the foreseeable future considerable friction will remain and it will be a lengthy process to turn things around.

This is underlined by our findings from those supporting the retail supply chain. Few of those working in LSPs or technology and other solutions providers from around the sector believe that existing planning systems fully support efforts to improve the planning process, with just 6.3% of technology and other solution providers believing so and 16.5% of LSPs feeling this way. Indeed, the majority of technology providers said that installed systems are only good for measuring the current state of the planning process and are not good enough to improve it or are in effect pretty much useless.

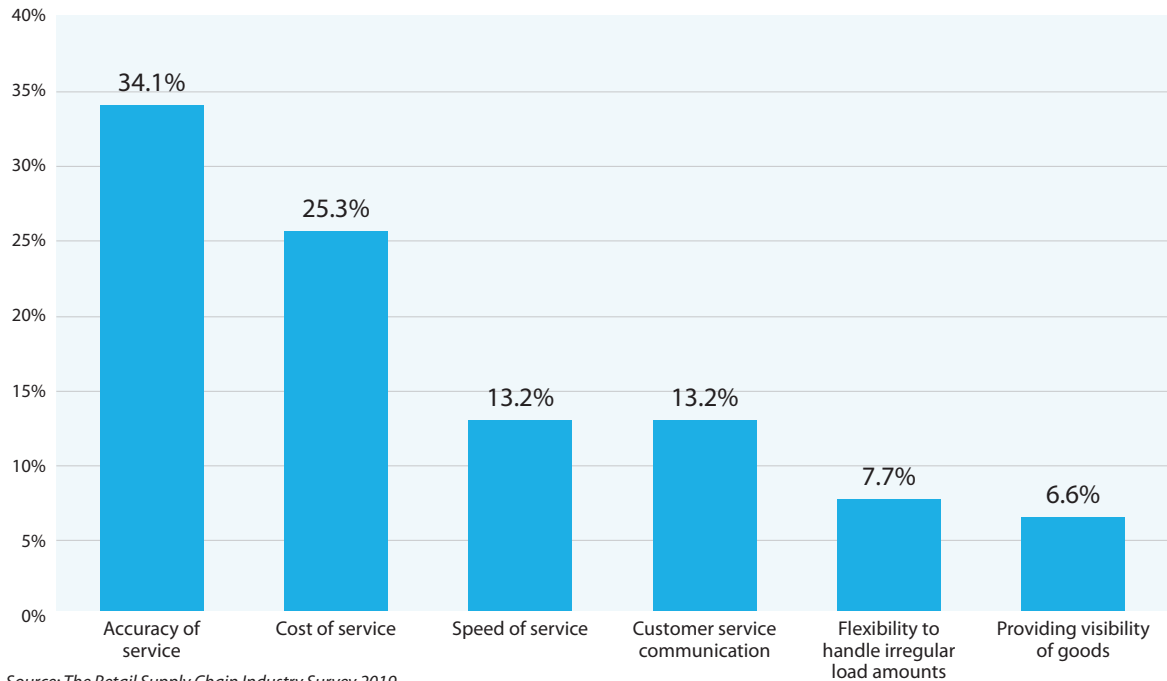
There will therefore need to be considerable investment and coordination to address the issues of forecasting, visibility, low capacity to react to changes and poor system integration. The urgency of this is further increased by the current environment, where customers expect their items in shorter timeframes than ever before, inventory goes out of date at a rapid rate, returns are far more frequent and tracking of items through to delivery becomes the norm, all the while against a backdrop of shrinking margins.

FIGURE 4: TO WHAT DEGREE DO YOU FEEL YOUR CUSTOMERS' EXISTING LOGISTICS TECHNOLOGIES SUPPORT EFFORTS TO IMPROVE PLANNING CAPABILITIES?



Source: The Retail Supply Chain Industry Survey 2019

FIGURE 5: KEY REQUIREMENTS FOR LOGISTIC SERVICE PROVIDER CUSTOMERS



Source: The Retail Supply Chain Industry Survey 2019

We can see these pressures in what LSPs understand as their customers' key requirements. Chief among these are accuracy of service (34.1%) and cost of service (25.3%). At a lower tier are speed of service and maintaining customer communication (13.2% in each case).

Visibility, a Perennial Issue

Visibility is one of the top issues for all supply chain operators and across our surveys and industry research over the last few years there has been a consistent desire to achieve greater visibility. In our 2019 [Hot Trends report](#), LSPs said that visibility was their second biggest challenge that they would face in the year, after cost control.

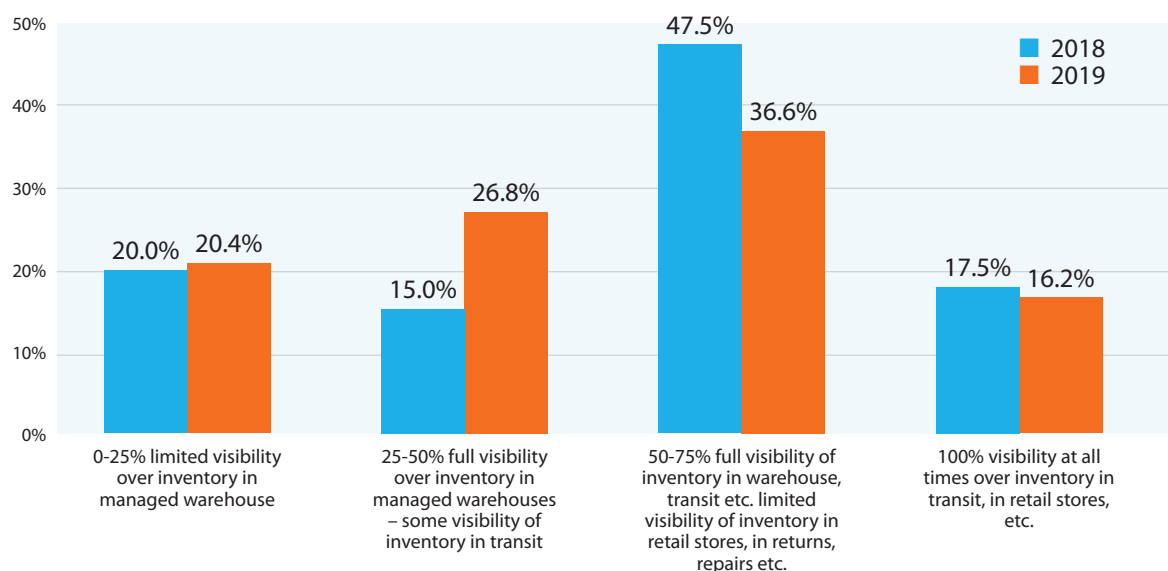
A 2019 survey of 450 European supply chain professionals by Zetes and Sapio found that 71% of executives thought the lack of visibility in their supply chains hurt their business and 94% said that they lack the right level of oversight, underlining how widespread and deep the problem is (Zetes, 2019).

The benefits of reversing this trend and achieving a supply chain more open to scrutiny and monitoring are numerous, particularly for the retail supply chain, where tastes change, returns need to be processed and the ability for customers to track their goods is now a competitive advantage.

In the Zetes survey, 87% of those questioned thought that a fully visible supply chain with real-time updates would enable a competitive advantage for their business, and respondents on average said that they believe full visibility would raise customer satisfaction and loyalty by over 30% (Zetes, 2019).

On an operational level, the efficiencies may be even more important than the gains in customer experience and retention. Increasing visibility, particularly when it comes to returns management, would lead to major reductions in wastage, both in terms of goods that then must be discounted or thrown away, and in terms of booking unnecessary shipping.

FIGURE 6: VISIBILITY OVER MANAGED INVENTORY FOR SERVICE PROVIDERS

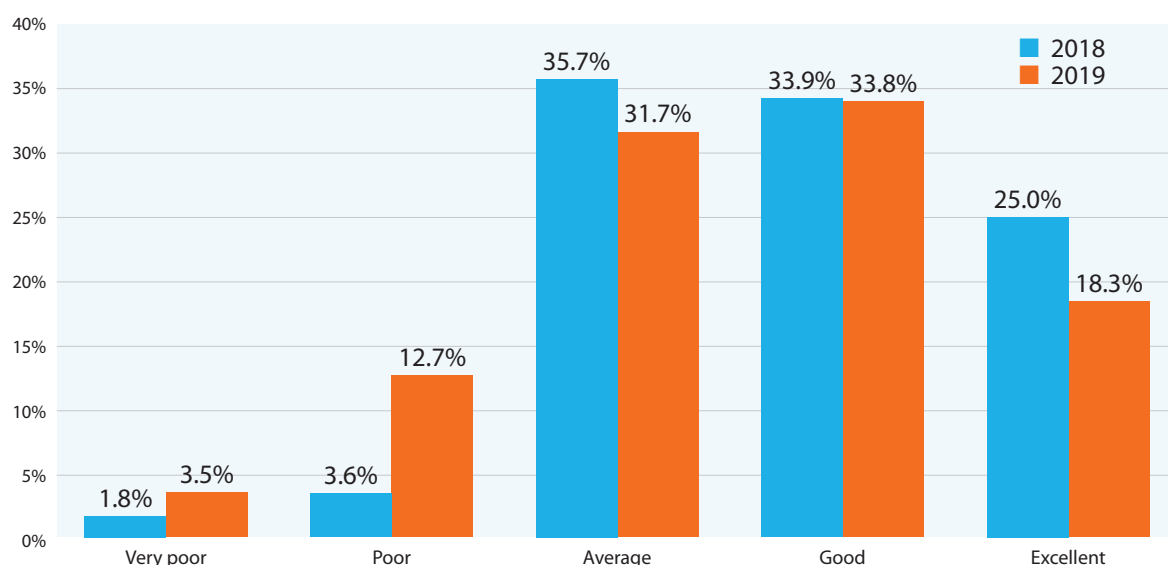


Source: The Retail Supply Chain Industry Survey 2019

Combining greater visibility with superior forecasting capabilities would lead to exponential gains, hence why both are considered so important by our survey population. By doing so retailers and manufacturers would be better able to tailor orders and production to actual demand, and get goods into market when seasonally appropriate and demanded by customers, thus increasing overall sales.

Frustratingly for the retail supply chain, there appears to be very little progress when it comes to widening visibility over the last few years. Comparing results from our 2018 and 2019 surveys, there appears to be some regression, or at the very least, little advancement in the area. Between 2018 and 2019 there was a statistically negligible rate of

FIGURE 7: HOW WOULD YOU RATE YOUR ABILITY TO PROVIDE END-TO-END VISIBILITY TO YOUR CUSTOMER?



Source: The Retail Supply Chain Industry Survey 2019

change in reporting of limited visibility in managed warehouse inventory, rather than the fall one would hope for, and the same could be said for those reporting 100% full visibility.

Instead technology and other solution providers reported to us that they are getting less able to provide end-to-end visibility to their customers. The percentage of companies reporting that their abilities to provide end-to-end visibility are poor or very poor, increased from 5.4% to 16.2% between our 2018 and 2019 surveys.

Although the challenge is potentially huge and requires cooperation from multiple actors, it is clear more needs to be done in this area and represents an opportunity for service providers to step up their game.

There is investment into improving visibility and a recognition of its importance, however. In our [technology trends report](#), we found that the top four areas of technology investment are in visibility or in technologies that can help increase visibility. In order, the top four areas of investment are business intelligence, transport management, visibility and warehouse management.

Similarly, the Zetes' survey found that just under 90% of European supply chain professionals put improving visibility as one of their top investment priorities over the course of 2019 and 2020 (Zetes, 2019).

However, the above results and visibility's continued presence as a major challenge suggests that this is not yet enough.



Command and Control: The State of Retail Supply Chain Planning

Key Takeaways

- By far and away the most used planning solution for supply chain professionals in retail and manufacturing is Excel, with 61.5% saying they use the software.
- Just over two thirds report that they don't use forecasting software, despite it being the sector's greatest challenge.
- No respondents to the survey think they have an extremely efficient supply chain operation. Just 22% said that they were achieving good efficiency in their supply chain and the majority – 61% – felt that they were efficient enough for day-to-day operations but nothing more. 17% said that they were quite or very inefficient.
- Too few are aligning their transportation plan with their warehouses and their stores. Just 30.8% have the option to determine which warehouse supplies which store, and as little as 18.5% report they have inbound and outbound fleet integration and the option to determine which store or warehouse can supply a customer with a home delivery.
- The vast majority of retailers outsource some or all of their logistical support, with just 7.7% overseeing the entire operation in-house.

The results of our survey are startling and underline just how much investment will need to be made into the retail supply chain's command and control structure to address the key challenges noted at the start of Chapter 1. We found that Excel remains the most prevalent planning solution deployed by retailers and manufacturers, while key supply chain management systems, such as inventory planning software, forecasting software and optimization software, are used by less than a third of the survey population.

This lack of supporting technology is exacerbating the issues in coordinating and overseeing the retail supply chain. Externally, this is a substantial issue as the majority of retailer and manufacturers in our survey said that they outsource logistics to a 3PL, meaning data sharing and cooperation is mission critical and it is vital that it is better facilitated. Internally, low technological preparedness is leading to small percentages of retailers and manufacturers adopting measures to enhance transport chain efficiencies, such as aligning picking windows and transportation plans.

It can therefore be of no surprise that no respondent to our survey said that their current supply chain planning is extremely efficient.

This is a concerning state of affairs that needs to be addressed as a top priority given the ongoing 'retail apocalypse' and disruption shaking up the industry. Those that fail to drag their planning structures into the future are going to

be hard-pressed to survive in an age where e-commerce is in the ascendancy and the consumer places increasing value on convenience, requiring an agile, adaptive and cooperative planning structure.

Technological Lag

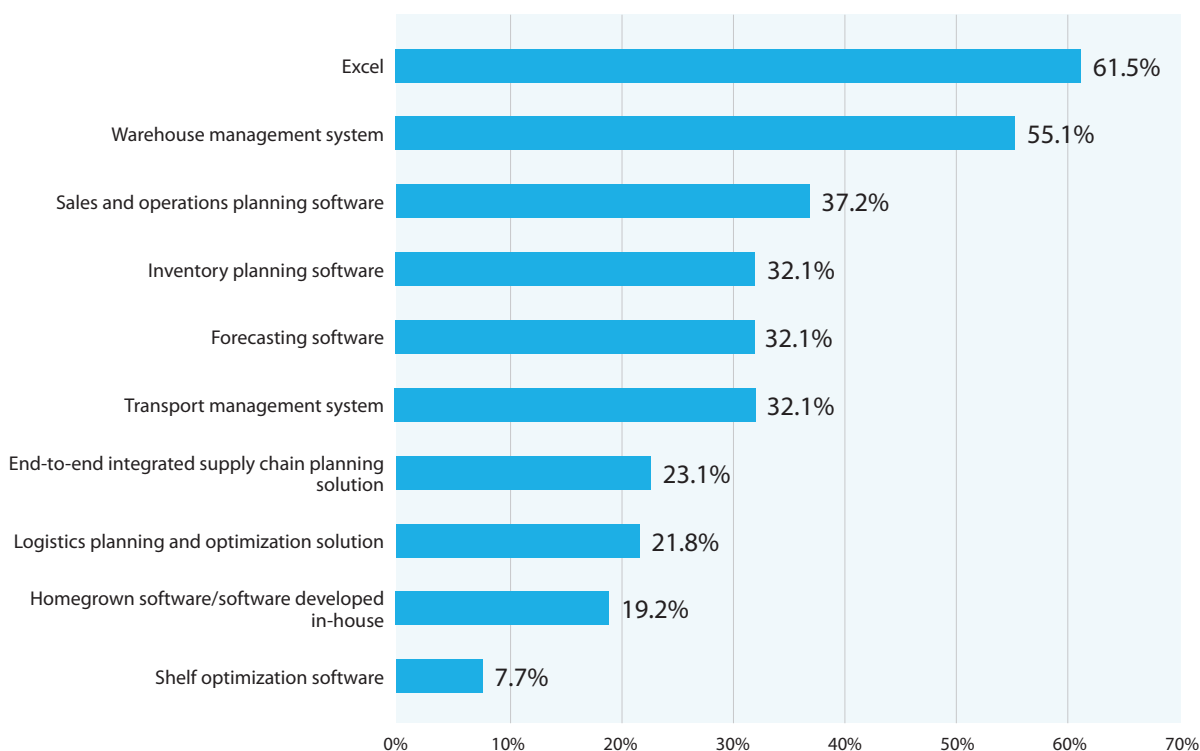
Despite the potential of the supply chain to become a key differentiator in the competitiveness of a retailer, and a widespread perception of benefits, there appears to be far too little impetus to innovate and adopt new systems that can exponentially improve efficiencies in the planning process, and therefore the whole supply chain.

This can be seen in the current state of planning solutions deployed by retailers and manufacturers. By far and away the most used planning solution for supply chain professionals in retail and manufacturing is Excel, with 61.5% saying they use the software. While clearly Excel has a high number of useful functions and is extremely widely understood, deployed and used, it is disheartening to see it being the default technology rather than a supporting actor, which can supplement other technologies.

Although it is encouraging to see more than half report that they are currently using warehouse management software (55.1%), this is a rare standout of majority adoption of a key technology, as all subsequent technologies we asked about in our survey had been adopted by less than half of retailers and manufacturers.

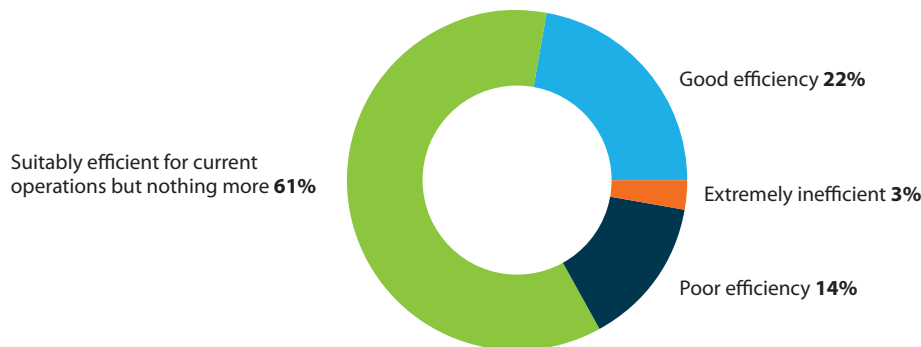
Despite forecasting being the greatest challenge that they face, just 32.1% - less than a third – said that they have implemented this technology. The same percentage also say that they use inventory planning software and a transport management system.

FIGURE 8: CURRENTLY USED PLANNING SOLUTIONS BY RETAILER AND MANUFACTURERS



Source: The Retail Supply Chain Industry Survey 2019

FIGURE 9: HOW WOULD YOU RATE THE EFFICIENCY OF YOUR CURRENT SUPPLY CHAIN/SUPPLY CHAIN PLANNING?



Source: *The Retail Supply Chain Industry Survey 2019*

This technological lag means that efficiency is being impaired, and those key challenges noted in Chapter 1 loom large over the sector. Utilizing Excel as the primary planning system leads to inherent inefficiencies in compiling reports and running analysis, with more room for human error. By the time retailers understand what is happening in their supply chains, it can often be too late.

It can therefore be of no surprise that not a single retailer or manufacturer that replied to our survey thought their supply chain and its planning was extremely efficient. Just 22% said that they were achieving good efficiency in their supply chain and the majority – 61% – felt that they were efficient enough for day-to-day operations but nothing more. 17% said that they were quite or very inefficient.

The retail supply chain needs to move towards a more technologically advanced set of platforms that allow it to be dynamic: Dynamic in generating and analyzing real-time data; dynamically generating the best routes to match the situation, available transportation and end-point; dynamic in its ability to source components or products from different suppliers to spread risk; and dynamically forecasting demand.

Coordinating a Complex Machine

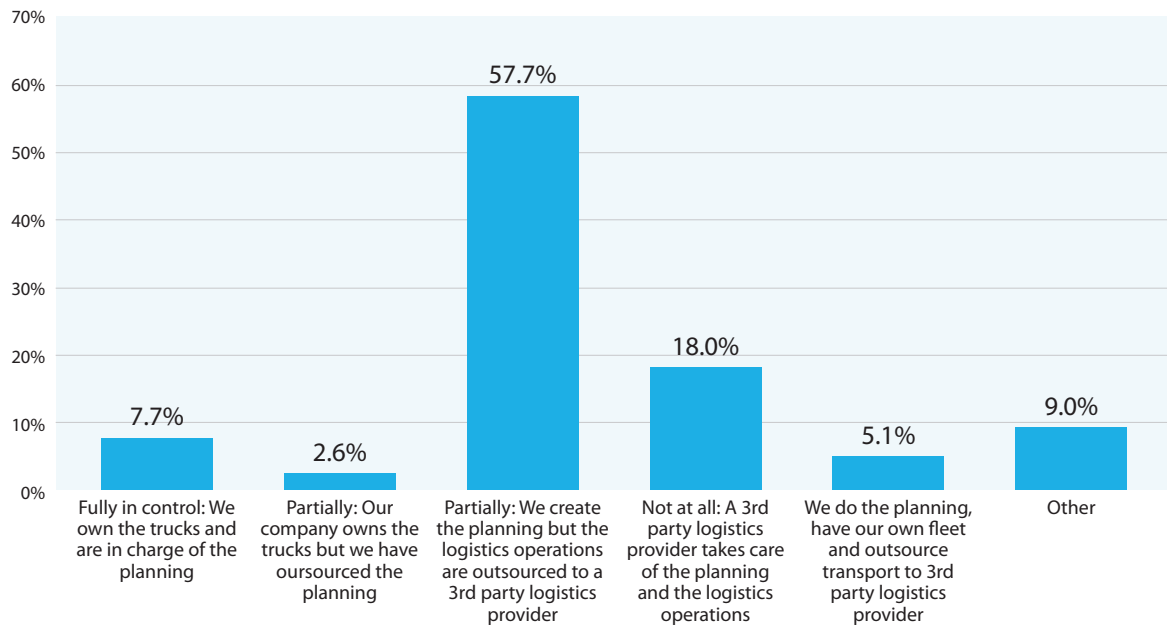
Achieving a dynamic supply chain means working across multiple partners, with retailers and manufacturers frequently completely reliant on intermediaries to move and distribute their products. This heightens the need for effective planning capabilities and exacerbates technological flaws in systems, especially as much of the modern supply chain crosses national borders, with the most complex product's components often moving transnationally multiple times.

In our survey we found that the retail supply chain almost invariably means working across multiple jurisdictions and with logistics partners, which reinforces the criticality of effective planning and visibility between different players.

Amongst the retailers and manufacturers we surveyed, an overwhelming majority – 86.3% – said that they operate internationally. A high percentage also work with 3PLs to move their products, with 80.8% utilizing their services in their logistics operations and just 7.7% overseeing the entire operation in-house.

Given the already inherent complexities of working in this multi-partner, international environment, it is important that retailers are working hard to get their operations working as smoothly as possible. However, once again we

FIGURE 10: TO WHAT EXTENT ARE YOU IN CONTROL OF YOUR LOGISTICS PLANNING?



Source: The Retail Supply Chain Industry Survey 2019

found that there is still much room for improvement, with low utilization of several important processes that can enhance operational efficiency and these gaps serve to highlight the shortcomings in the current planning operations behind the retail supply chain.

Although broadly aligning the warehouse workforce with a logistics plan is now commonplace, with just under two thirds of retailer and manufacturers who don't outsource this element doing so, rates rapidly drop off for a number of other important coordination elements. Primarily, these can be summarized as too few retailers and manufacturers aligning their transportation plan with their warehouses, as can be seen in the following low percentages

- **36.9%** are aligning delivery windows at stores with the delivery plan
- **35.4%** are aligning their picking time at the warehouse with the logistics plan
- **30.8%** have the option to determine which warehouse supplies which store
- **30.8%** have trucks that can load from multiple warehouses
- **18.5%** have inbound and outbound fleet integration.

This is leading to over a quarter of respondents noting available loading docks on the warehouse can be a bottleneck for their operations.

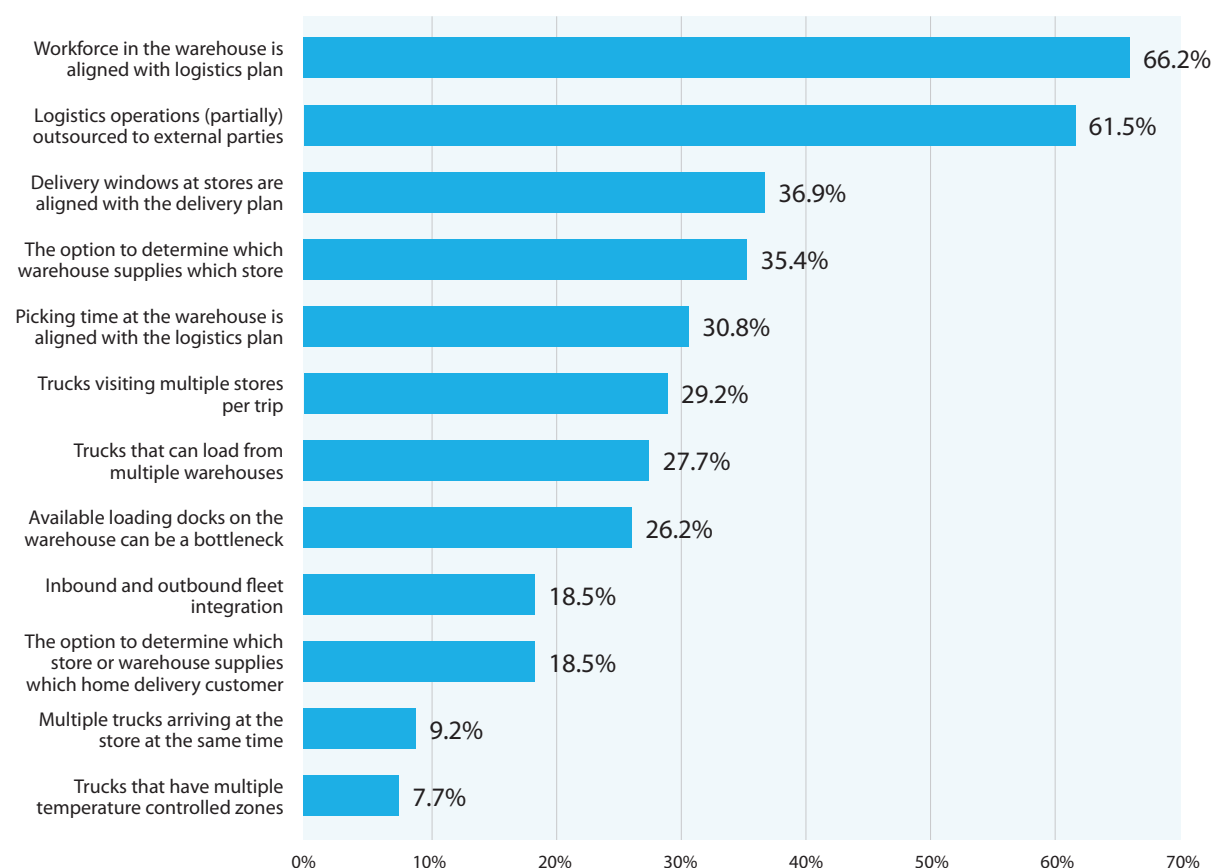
The percentages fall even further when it comes to including the store into a cohesive logistics approach. For many retailers the store should represent a competitive opportunity, as it is an asset that e-commerce giants largely don't have, and indeed seem keen to acquire, as can be seen with Amazon's Whole Foods purchase and plan to open grocery stores in the US, JD.com's move to open physical stores and Flipkart's recent announcement that it will work with some 27,000 physical stores in India during the key 2019 holiday season. Despite this, just 29.2% coordinate their transportation so that trucks visit multiple stores per trip and a lowly 18.5% said that they have the option to determine which store or warehouse can supply a customer with a home delivery.

Perhaps the complexity of managing a retail supply chain through so many different partnerships and the challenges that it represents is why many retailers are looking at expanding their logistics operations both in terms of their own capital equipment and real estate.

In our survey 73% of retailer and manufacturers reported that they did not have their own fleet of trucks, but an April 2019 survey of 100 UK retailers found that this could be about to change, as 45% said that planned to invest into their own fleet of vehicles (TLT, 2019). Instead of increasingly relying on 3PLs it seems many are planning on handling more of their deliveries in-house in the hope that this will ease the burden of coordinating across so many different partners and help them keep an eye on costs.

Looking at the industrial property side, with warehouse space at a premium, urban consumers growing in number and affluence globally, and last-mile delivery usually the single largest cost component, we can expect more retailers to move to shared warehouses and smaller warehouses placed close to urban customers. This will help retailers in addressing same-day delivery and matching consumer demand patterns. However, this trend also emphasizes how the modern store can double as a key piece in the jigsaw puzzle and one that retailers need to focus on. Stores can double as mini, urban warehouses, helping to ease the burden of falling footfall and sales from traditional purchasing habits and giving retailers critical space close to their most important customers at little added cost to current operations.

FIGURE 11: PLANNING COMPONENTS IN THE RETAIL SUPPLY CHAIN



Source: The Retail Supply Chain Industry Survey 2019

Retail Supply Chain Forecasting and Technology

Key Takeaways

- 62% of LSPs reported that their customers understand that planning is mission-critical and a further 22.5% say that forecasting and planning are company-wide goals for their customers even if they are failing to adequately measure supply chain performance.
- Just 14.1% said that they had an analytical system of some kind that could help them make judgements on the probable success and costs of their ongoing plans.
- 58.5% of retailer and manufacturers are planning their logistics operations a week or less in advance, this jumps right up to 80.2% of LSPs, with a major difference in the rate of LSPs planning their operations in real time at 28.6%, compared to 9.2% of retailers and manufacturers.
- Only 19% of retail executives report a fully digitized supply chain management process.
- Business and IT systems and databases are the greatest areas of investment for the retail supply chain.

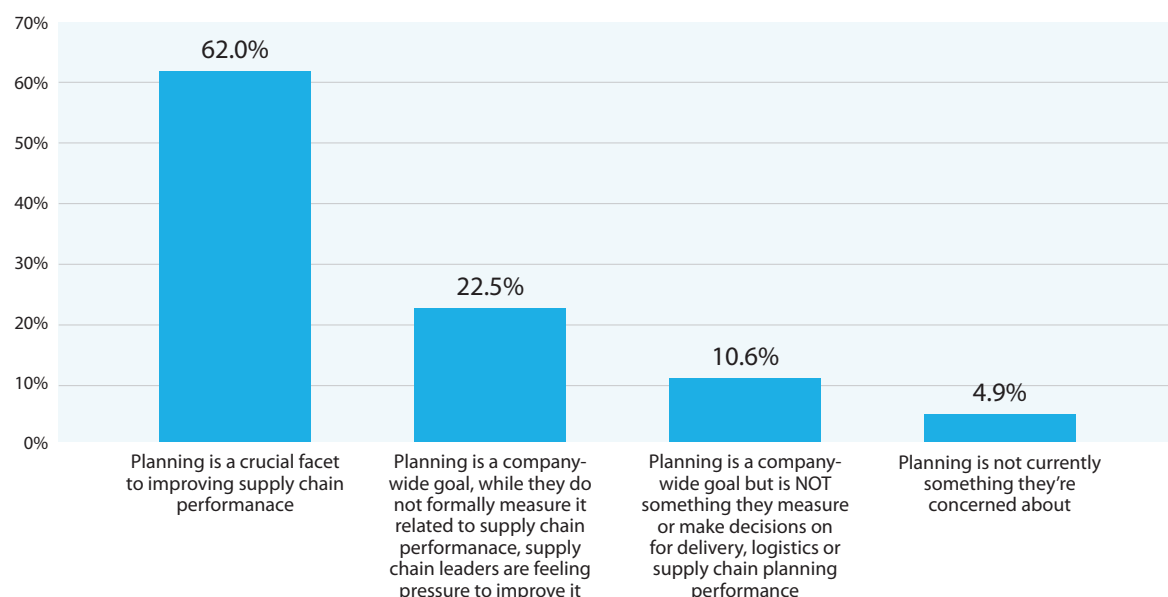
Forecasting may be the single biggest challenge that the retail supply chain faces but how is the sector facing up to this critical hurdle? While the industry understands its criticality, it continues to struggle with taking a more forward-looking, technology reliant and analytical standpoint to forecasting. Supporting software is rare and reliance on human judgement calls is the norm, rather than taking a data science approach that helps to remove our own instinctual biases. There also appears to be a gap between the planning process for retailer and manufacturers and communicating this to their LSPs, which means that even accurate forecasts can be hindered by not having the capacity to address it as projections were not adequately shared with the key partners who needed to allocate capacity in good time. There will need to be a much more digitized and interconnected approach that allows for less manual grunt work and more time to be put towards higher cognitive functions than filling out spreadsheets.

Fail to Forecast, a Forecast for Failure

The good news is that there is widespread recognition of the criticality of forecasting and planning to the retail supply chain. Not only do all players recognize that it is one of the top challenges, but they are also aware of how it should sit at the center of its operational approach. 62% of LSPs reported that their customers understand that planning is mission-critical and a further 22.5% say that forecasting and planning are company-wide goals for their customers even if they are failing to adequately measure supply chain performance.

The bad news is that there is not enough of a systemic, data science-based, long-term approach to forecasting. Currently there is too much reliance on looking at metrics over short time periods and analyzing only the recent past, with too few having in place analytical systems that can help them to make more accurate forecasts. Looking at how retailers and manufacturers forecast workloads in 2019, only a quarter said that they use historical data alongside advanced analytics. Instead, they were more likely to make projections using either data from the

FIGURE 12: HOW IMPORTANT IS INVENTORY PLANNING AND FORECASTING TO YOUR CUSTOMERS AND THEIR PARTNERS?

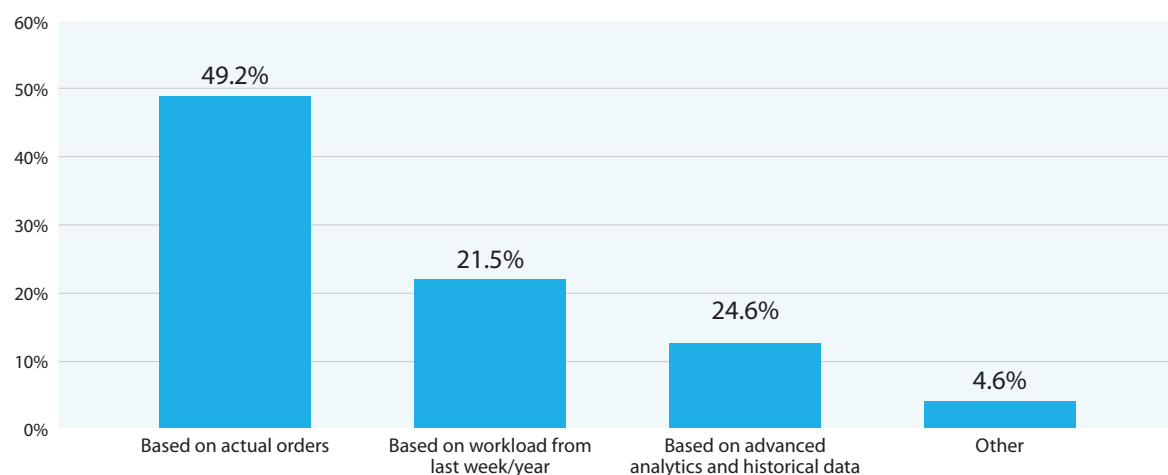


Source: The Retail Supply Chain Industry Survey 2019

same timeframe last year or the prior week as is the case for 21.5% of respondents or, for just under half, based on orders already recorded in their systems.

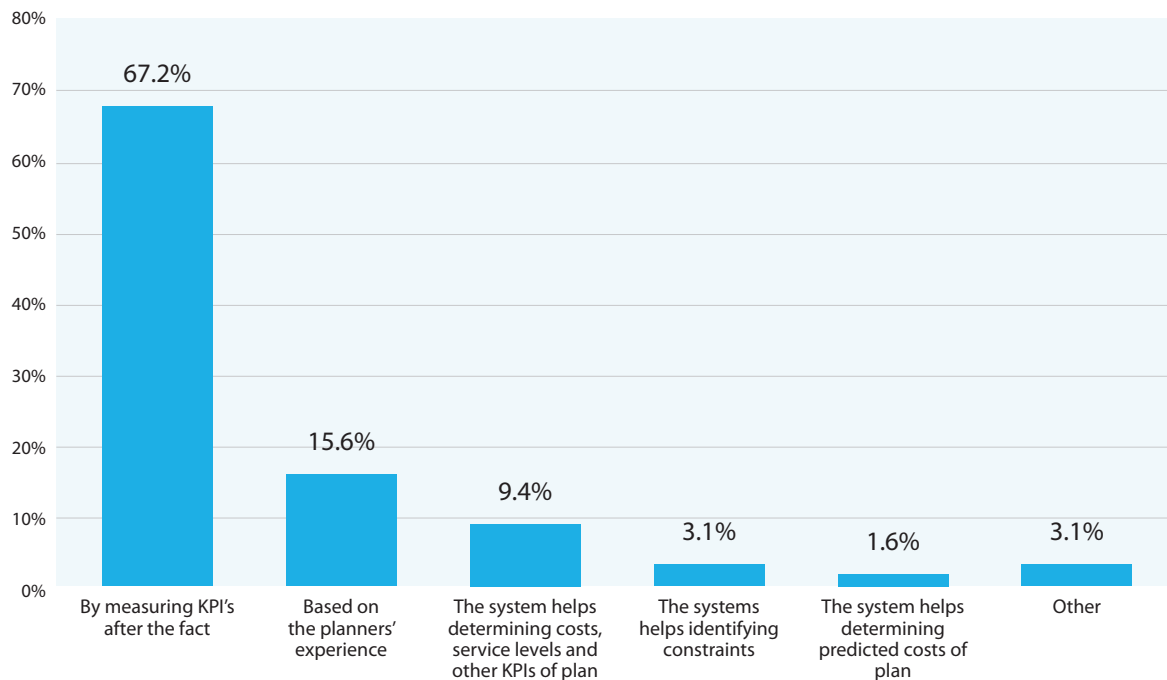
There was a similar story of low levels of supporting analytical software preventing proper forward-looking analysis when it comes to judging the quality of logistics planning. When asked how they determine the quality of their plan, retailers and manufacturers were most likely to say that they measure its success by measuring against set KPIs after the operations have concluded. A further 15.6% said that they rely on the experience of their planners. Just 14.1% said that they had an analytical system of some kind that could help them make judgements on the probable success and costs of their ongoing plans.

FIGURE 13: HOW DO YOU CURRENTLY FORECAST YOUR WORKLOAD?



Source: The Retail Supply Chain Industry Survey 2019

FIGURE 14: HOW DO YOU DETERMINE THAT YOUR LOGISTICS PLAN IS OF GOOD QUALITY?



Source: *The Retail Supply Chain Industry Survey 2019*

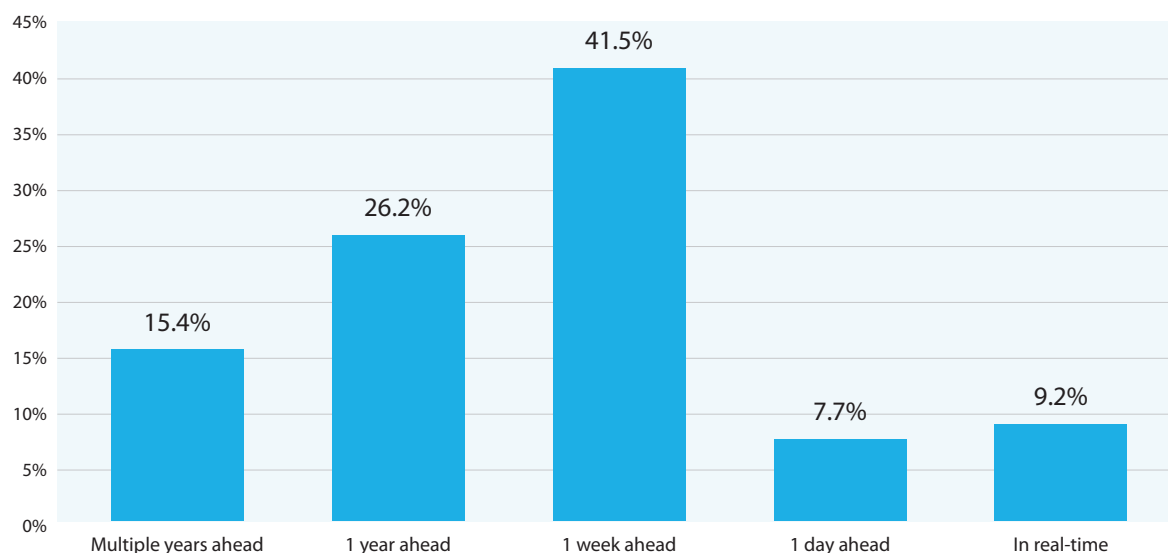
There is a significant need to move away from relying on either short-term measurements or measurements purely based on the previous comparable time period and to take in a much wider array of data to improve accuracy and diminish losses. Prior patterns, while instructive, do not always lead to replicable scenarios, especially when introducing new products or variables, such as changes to price points or packaging. Planners may need to consider a wide variety of external factors as well to try and predict both costs and demand, such as competitor performance, currency fluctuations, supply chain disruptions and shipping costs. This is particularly so in an age where trade conflicts loom large. Proper forecasting will require a blend of both human and technical expertise that is currently lacking across much of the sector, especially given the multitude of different metrics that need to be maintained and analyzed.

Forecasting for the retail supply chain is ultimately a decision aid to help get the right inventory in front of the right customers at the right level to match demand. With so many retailers and manufacturers reliant on LSPs to achieve, this there needs to be a collaborative approach that brings in these providers into the planning process so that they can provide matching capacity. However, our results appear to suggest that there is some disparity between the planning of LSPs and their customers.

Whereas 58.5% of retailer and manufacturers are planning their logistics operations a week or less in advance, this jumps right up to 80.2% of LSPs, with a major difference in the rate of LSPs planning their operations in real time at 28.6%, compared to 9.2% of retailers and manufacturers.

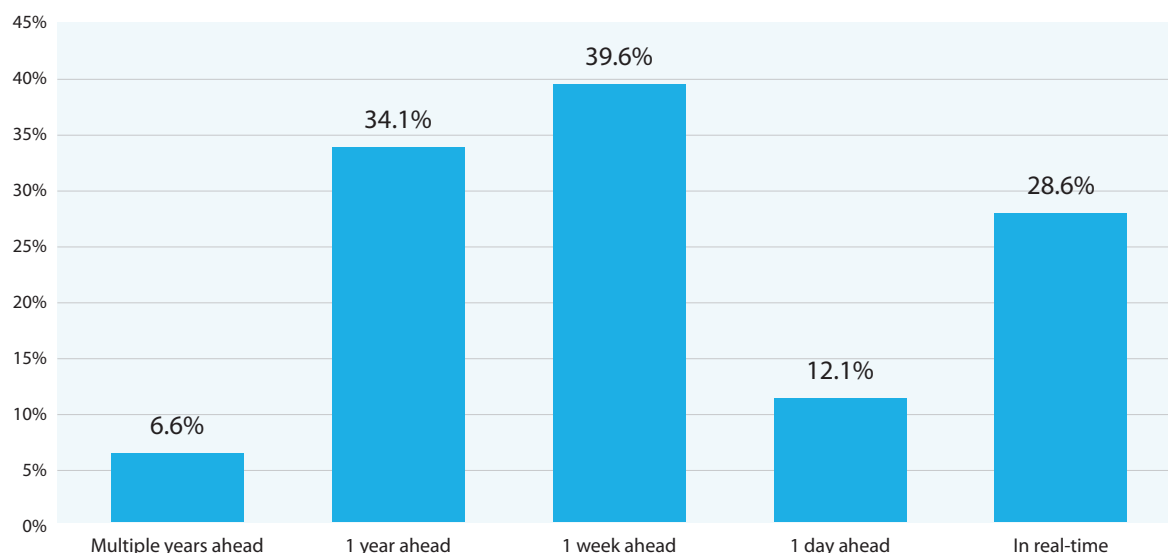
While a large portion of this can be put down to different business and operational models, with 3PLs handling much of the last mile and the short timeframes it entails, it does suggest that LSPs could be better informed as to expected demand patterns and forecasted transportation requirements.

FIGURE 15: PLANNING TIMESCALES FOR RETAILER AND MANUFACTURERS FOR LOGISTICS OPERATIONS



Source: The Retail Supply Chain Industry Survey 2019

FIGURE 16: PLANNING TIMESCALES FOR LSPS FOR RETAIL LOGISTICS OPERATIONS

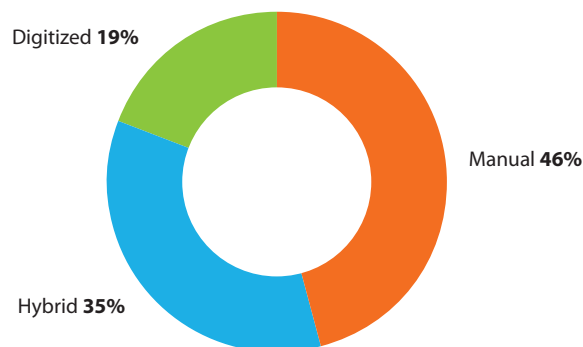


Source: The Retail Supply Chain Industry Survey 2019

Technology Transformation

As we have seen in the previous chapters, digital technology and automation still have large segments of the market to penetrate, despite the benefits that they can provide, particularly with regard to the core challenges of retailers and manufacturers. Our results suggest many continue to rely on labor-intensive means of tracking and analyzing the retail supply chain through physical documents, phone calls, emails and data entry into spreadsheets. This outlook is supported by other research into the retail supply chain. A 2019 survey of 500 US and UK retail executives found that only 19% reported a fully digitized supply chain management process, meaning that they could view live data from key points and make real-time decisions regarding their operations. 46% said that they

FIGURE 17: HOW DO YOU DESCRIBE YOUR SUPPLY CHAIN MANAGEMENT PROCESSES?



Source: Gravity Supply Chain, 2019

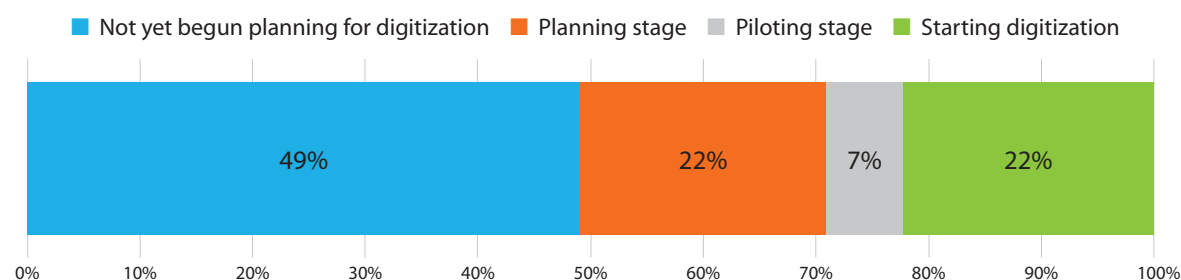
relied on a manual system, of the labor-intensive type outlined in the paragraph above, and 35% said that they lay somewhere in between (Gravity Supply Chain, 2019).

Furthermore, this research uncovered that for those firms using a manual approach, there was still a huge contingent that had not begun transitioning or was only just beginning the process. Just under half said they had not even begun planning for digitization, 22% said that they were planning, 7% piloting and 22% were past pilot schemes and on the verge of becoming at least partially digitized retail companies.

These findings, alongside our own, reinforce that the sector is, in many places, struggling to adapt to the new requirement of more agile and adaptive supply chains that can effectively monitor disruptions and demand changes as they occur and help logistics professionals make the right choices.

Looking forward, there is a clear need to invest in some of the basic technological frameworks that can allow for more digitally-focused supply chain planning. This is why we are seeing such a major surge for business intelligence and monitoring systems. Warehouse management, transportation management and analytics systems are going to be the biggest areas of investment and implementation over the medium term, as we have found here and in our technology trends report, as has research from TLT. It found among UK retailers that their top areas for both IT deployment and investment were into IT systems and databases, where 45% said they had deployed these and 34% said that they planned to, and warehouse IT systems and robotics where just 21% had the tech up and running but 41% said that they planned to. 61% also said that they had or planned to implement stock and inventory management systems (TLT, 2019).

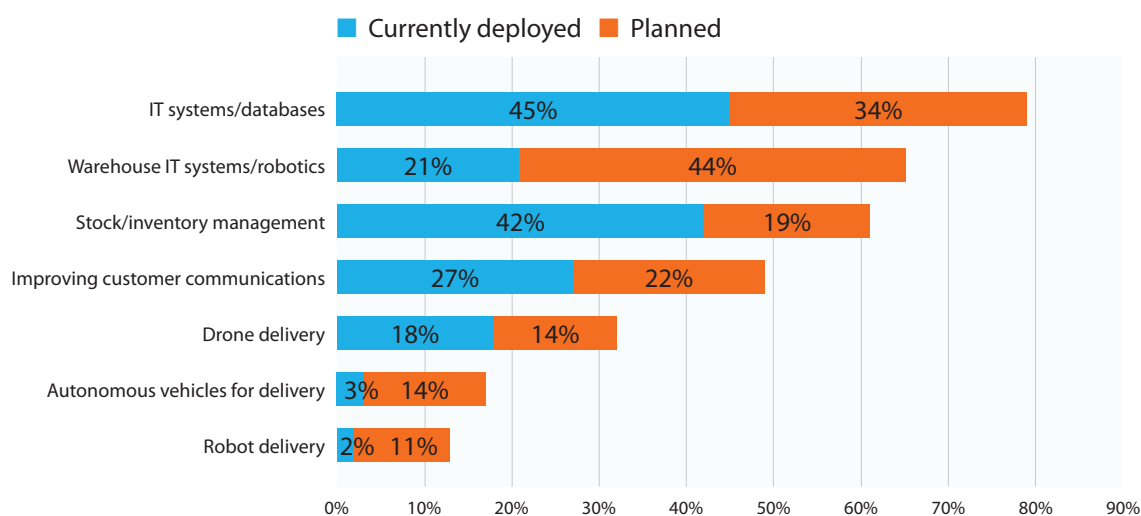
FIGURE 18: WHICH STAGE OF DIGITIZATION IS YOUR SUPPLY CHAIN CURRENTLY AT (NON-DIGITIZED FIRMS ONLY)?



Source: Gravity Supply Chain, 2019

The advantages of moving towards a more digitized supply chain management system stretch across multiple areas. Gravity research found that 54% of retailers said that it improved the customer experience, which led to greater loyalty, 47% said that operational costs were lower and 45% could get products to market faster (Gravity Supply Chain, 2019).

FIGURE 19: IT DEPLOYMENT AND INVESTMENT AMONG UK RETAILERS



Source: TLT, 2019



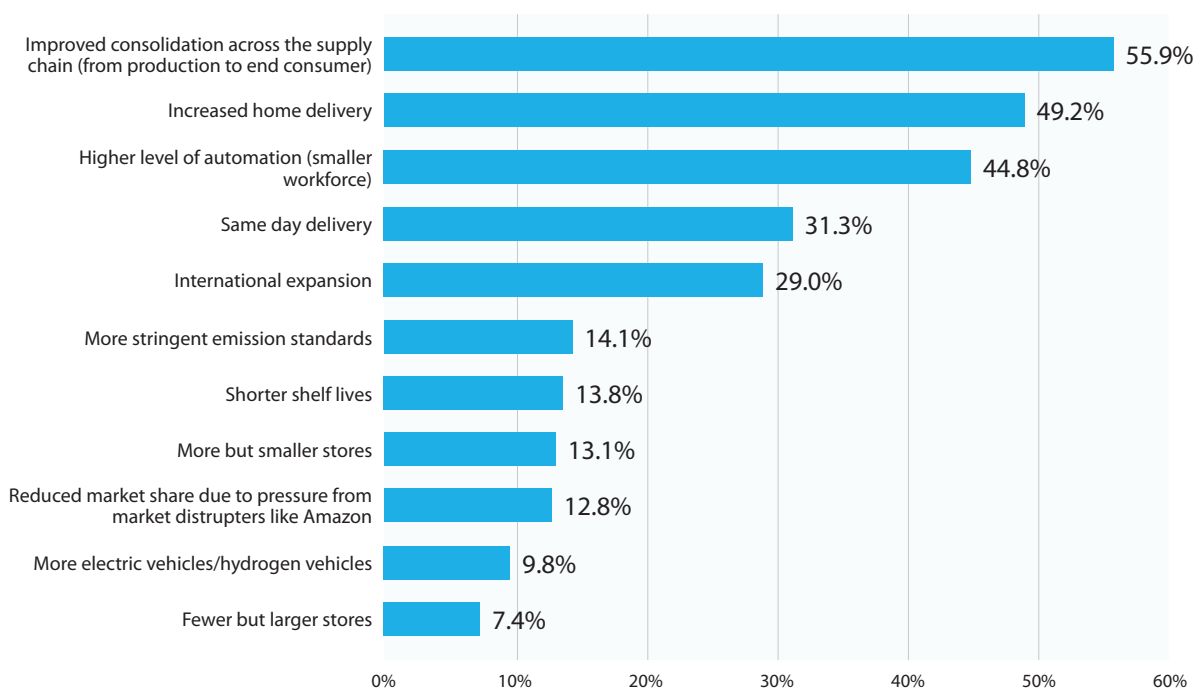
Trends to Watch

Key Takeaways

- The top expected trends are: Improved consolidation across the supply chain (55.9%); increased home delivery (44.8%); and greater automation (44.8%).
- Retailers and manufacturers still aren't preparing enough for the increasing demand for home and same-day deliveries. 58.9% of technology and other solution providers believe it to be a critical trend, as do 49.5% of LSPs, compared to just 27.7% of retailers and manufacturers. 18.5% of retailers and manufacturers expect same-day delivery to be critical, compared to 42.6% of tech companies.

It appears that the competitive pressures are front of mind for executives working across the retail supply chain. Squeezed margins and the need to restructure existing networks of both warehouses and stores means that the key trends to watch are focused on consolidation, automation and compressing delivery times.

FIGURE 20: EXPECTED LONG-TERM TRENDS



Source: The Retail Supply Chain Industry Survey 2019



VIEWPOINT: Key Trends

Ian Perotto, Director SCM Execution, METRO AG

AI will massively support order management, collaboration with customers and suppliers will be the new loyalty, data management will deploy a full potential of marketing actions, in-store shopping will become an in-store experience (for example through testing, degustations, training, etc.). Retailers have to enter a new era of trade.

Thomas Stroo, Head of Logistics, HelloFresh

For me the top trends to watch out for are:

- **Personalization: Putting the customer first!**
- **Trimming your supply chain network design. Decrease the number of touchpoints to create a lean supply chain model,**
- **Minimizing the supply chain footprint (sustainability).**

Tom Schmitt, CEO and Chairman, Forward Air Corporation

There will be continuing transformations of our industry. When you look at the supply chain, there is a lot of people involved ... from making a product, to you and me using that product. The number of players and value creation ... that will be challenged. There will be fewer middlemen, unless they step up and show a value that truly sets them apart. So, I think more nimble, more agile, fewer people in the chain and you really have to step up to show your value.

Respondents to our survey note that home deliveries are increasing and will continue to do so, and in shorter timeframes. Increased home delivery is expected by nearly half of our survey and 31.3% expect that same-day delivery will be key long-term trends.

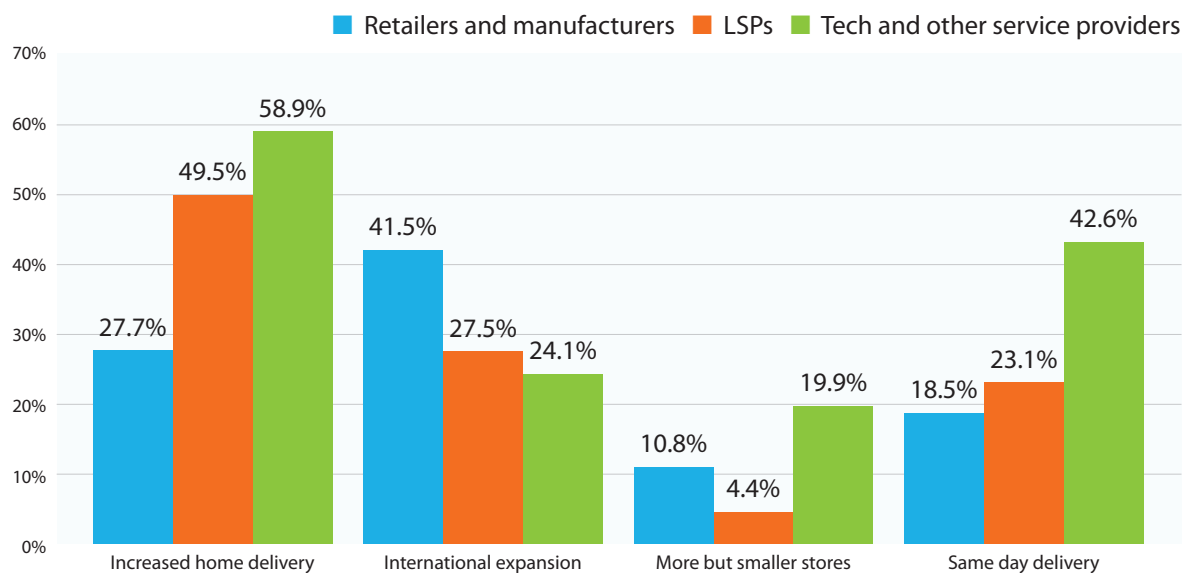
This is pushing companies across the retail space to look towards cost-savings measures through greater efficiencies, with the top long-term trend expected being improved consolidation across the supply chain, which was chosen by 56% of respondents. Further cost-savings are expected from a greater level of automation, which was the third top trend, chosen by 44.8% of logistics professionals.

Looking at differences between the various segments we surveyed, there appears to be gaps between how retailers and manufacturers see the space developing and what could be considered more hard-nosed analysis from logistics and technology solution providers. There was considerable difference between these segments when looking at the expected trends of increased home delivery.

Whereas 27.7% of retailer and manufacturers see increased home delivery as a key long-term trend, just under half of LSPs chose it and an even higher 58.9% of technology and other solution providers consider it key to watch. Similarly, 18.5% of retailer and manufacturers expect same-day delivery to be critical, compared to 42.6% of tech companies.

Retailers were also far more optimistic about international expansion, with 41.5% of retailer and manufacturers noting this as a key trend, compared to 27.5% of LSPs and 24.1% of technology other solution providers. Given that many of the world's largest brands have patchy records in entering foreign markets, such as Walmart in Japan and Tesco in China, this may be an area to par back expectations.

FIGURE 21: MAJOR DIFFERENCES IN EXPECTED LONG-TERM TRENDS AMONG PLAYERS IN THE RETAIL LOGISTICS SPACE



Source: The Retail Supply Chain Industry Survey 2019

Retailers would do well to consider these perspectives from other segments of their supply chain, particularly as tech providers live and die by their ability to see future trends emerging. Retailers need to be more aware of the shift over to home delivery and the acceleration of the process from customer order to delivery arrival. Already they have been burnt by being behind the curve introduced by the likes of Amazon and increasingly other regional players, such as Flipkart. Increasing the speed of delivery to the customer, improving tracking along the route, enhancing accuracy of delivery schedules and finding ways for physical stores to support the journey to the customer need to be put as a higher priority among retailers.

All segments may also be underrating some of the above trends, most obviously the pressure from the likes of Amazon, which was chosen by just 12.8% of respondents but also enhanced environmental regulation. Only 14.1% see this as a key trend, despite a raft of new standards coming into force in the near-term, which will have implications far out into the future. New emission standards for cargo ships to reduce sulphur emissions are likely to push up not only container costs but diesel prices as ships transition to cleaner-burning fuels. Then there are more stringent emissions coming into force for vehicle manufacturers, most notably from the EU, and a growing number of city and state regulations to manage emissions and promote cleaner vehicles. All of these threaten to increase costs in an environment of already thin margins for many of the players along the chain and should therefore be watched closely over the next half decade.

Conclusion

While the retail supply chain has grasped the need to change and become more dynamic through the application of technology and analytics, it continues to struggle to put in the foundations necessary to achieve this. Much of the sector's current operations rely on time-consuming data inputting and sharing models that urgently and radically need to be updated to allow operators under time and cost pressures to address the key challenges of forecasting, visibility, reaction capability and system integration uncovered by our survey.

Whilst no one should be under the impression that there are short-term fixes to digitalizing complex supply chains that may stretch from Bangladesh to Sweden, for example, and the potential for wildly differing technological bases and systems in between, there does need to be a more concerted approach.

Retailers also need to be making stronger appraisals of how they compete in a sector transforming at a breakneck pace, as it appears from their level of technological deployment, lower belief in home delivery as a transformative factor and under-utilization of owned resources that they are still coming to terms with how fundamental this shift is, and will continue to be.

They will need to think hard about each step of the supply chain and how that can become a competitive advantage for them. From understanding production flows and bottlenecks, to predicting customer demand, to monitoring goods in transit, to increasing automation in warehouses, to greater cooperation with LSPs, to utilizing stores more effectively to help the last mile, there has to be more focus on joining up the dots and making it work under a shared technological umbrella.

What's more, this needs to be done with a sense of urgency. The customer is not going to wait for a brand to get into shape. They expect home delivery to be convenient. They expect to know where their goods are following an order. They expect shelves to be stocked and for prices to be stable. There are plenty of competitors hungrily eyeing a wide variety of retail verticals and they are building integrated, low-cost supply chains to make their mark. Retail brands need to adapt and choose whether they are going to let their Excel spreadsheets die or their businesses.

About Dassault Systèmes

We live in an age where:

- Businesses need to look beyond the aesthetics of a product or the practicalities of a service
- Consumer engagement and loyalty count far more than features and benefits alone
- Consumers expect to interact with or even influence suppliers – not just be sold to.

Products are no longer enough for today's consumers who value experience above everything else. The Age of Experience has arrived, and Dassault Systèmes' role in this age is it to provide business and people with 3DEXPERIENCE® universes to imagine sustainable innovations capable of harmonizing product, nature, and life.

We offer a new approach to innovation and doing business in the experience economy. The key to making consumer experience the true focus of innovation is to capture insights and expertise from across a business's entire ecosystem. Shaping the right consumer experience requires not only the involvement of, but also the collaboration among, all the roles within a company, from engineering to marketing to sales.

Only by connecting all the dots between people, ideas and data can a business drive consumer loyalty, engagement and value. This can be achieved on our 3DEXPERIENCE platform, which enables companies to freely test their ideas, products and consumer experiences before actually producing them. This is a new approach to inventing new usage methods and products.

Our 3DEXPERIENCE platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences. Dassault Systèmes brings value to over 250,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.

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