Digital Supply Chain Planning Outlook 2022

Survey-based Research Study

Companies are continuing their steady march to digitally transform supply chains, with a new push to focus on people while also increasing investments in automation and supply chain resilience.

EXECUTIVE SUMMARY

To say the past two years have challenged supply chains would be a gross understatement. Between dramatic demand fluctuations to protracted supply delays, many businesses reached a breaking point. Others seized the opportunity to find innovative ways to deliver the new wave of innovation customers now expect. The benefit of digital planning–or the sorely felt absence of it–cannot be overstated.

The Council of Supply Chain Management Professionals (CSCMP) and ToolsGroup surveyed nearly 300 supply chain professionals around the world for this global survey report, which gauges the state of supply chain planning digital transformation by analyzing respondent data and comparing it with results from previous reports on digital planning transformation. Respondents include executives, managers, and planners/practitioners from manufacturing, retail, wholesale-distribution, third-party logistics services (3PL) firms, and consulting organizations. The survey was conducted in January 2022 among companies with annual revenues ranging from less than $100 million to more than $5 billion.
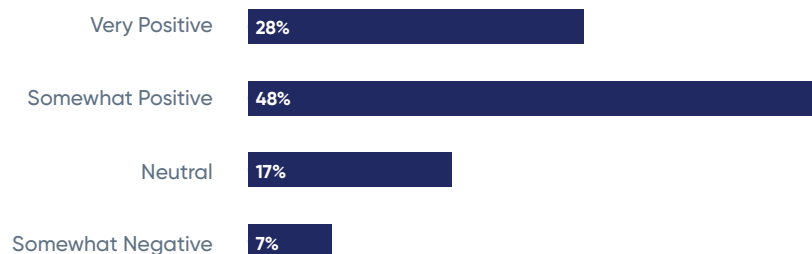
The survey results show that companies are charting a steady course toward digital transformation, and as supply chain challenges become more frequent and intense, company leaders are increasingly focused on implementing solutions that can help them better manage risk and become more resilient. Solutions include supply chain automation and software, infrastructure and facilities investments, and recruiting, retention, and training strategies, among others.

2022 OUTLOOK TEMPERED BY CHALLENGES, DISRUPTIONS

Most companies started 2022 with a positive business outlook, but they remain concerned about external factors that have been wreaking havoc on supply chains over the past two years—and those issues weigh heavily on their supply chain planning strategies. Escalating fulfillment costs, supply chain delays, and surging inflation top the list of external worries, as does the seemingly ever-present need for more accurate demand forecasting.
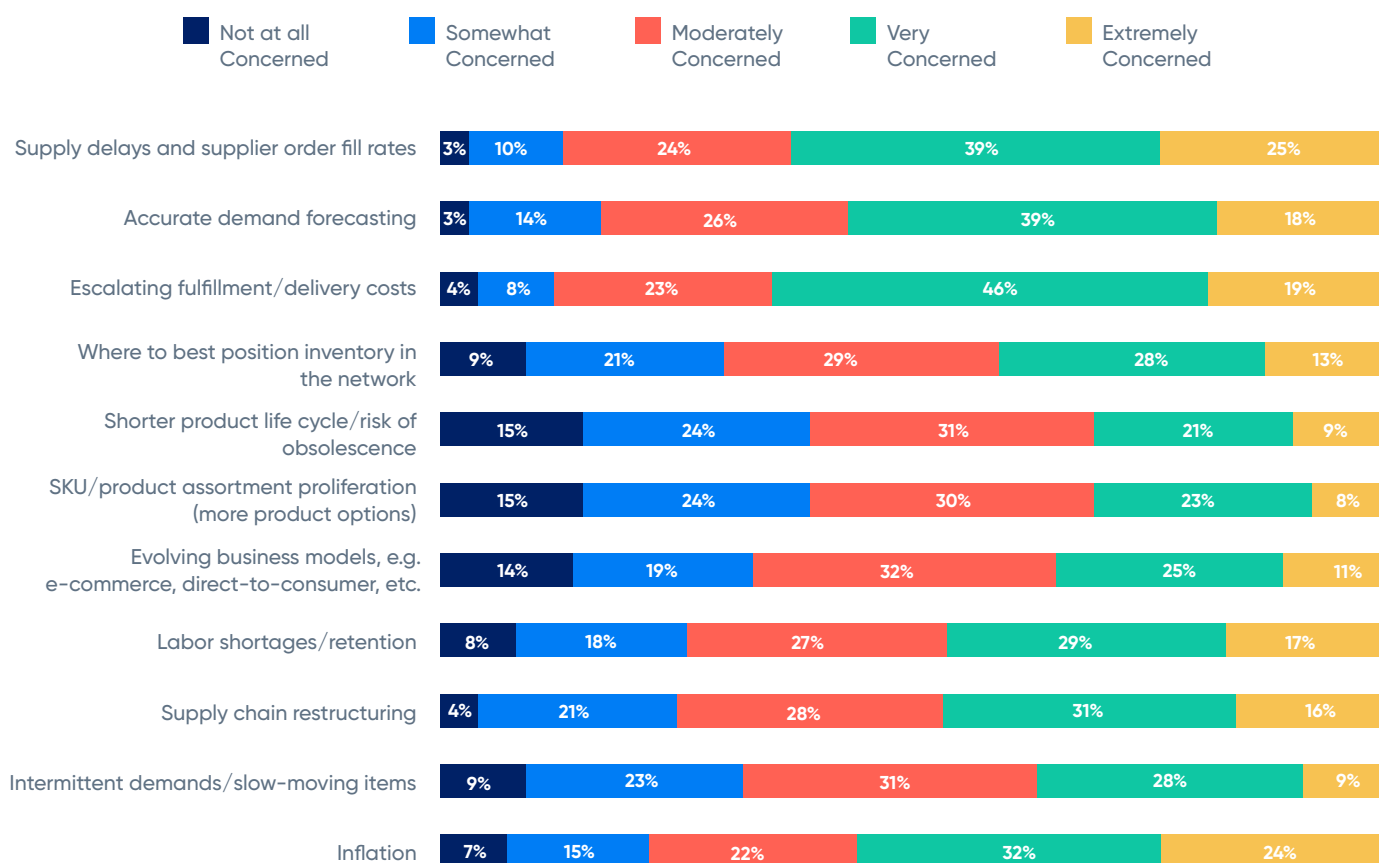
Two-thirds of respondents listed escalating fulfillment/delivery costs as a factor they are either very concerned or extremely concerned about, followed by supply delays and supplier order fill rates (64%), inflation (57%), and accurate demand forecasting (57%). *(See Figure 1 and 2)* In comparison, respondents were less concerned about internal issues, such as shorter product life cycles and the risk of obsolescence (40% are either not concerned at all or somewhat concerned) and having more product options available (39% were either not concerned at all or only somewhat concerned).

+ Figure 1 What is your overall business outlook for 2022?

Very Positive	28%
Somewhat Positive	48%
Neutral	17%
Somewhat Negative	7%

+ Figure 2 What is your level of concern regarding the following topics?

	Not at all Concerned	Somewhat Concerned	Moderately Concerned	Very Concerned	Extremely Concerned

Topic	Not at all	Somewhat	Moderately	Very	Extremely
Supply delays and supplier order fill rates	3%	10%	24%	39%	25%
Accurate demand forecasting	3%	14%	26%	39%	18%
Escalating fulfillment/delivery costs	4%	8%	23%	46%	19%
Where to best position inventory in the network	9%	21%	29%	28%	13%
Shorter product life cycle/risk of obsolescence	15%	24%	31%	21%	9%
SKU/product assortment proliferation (more product options)	15%	24%	30%	23%	8%
Evolving business models, e.g. e-commerce, direct-to-consumer, etc.	14%	19%	32%	25%	11%
Labor shortages/retention	8%	18%	27%	29%	17%
Supply chain restructuring	4%	21%	28%	31%	16%
Intermittent demands/slow-moving items	9%	23%	31%	28%	9%
Inflation	7%	15%	22%	32%	24%

Despite those challenges, the digital supply chain planning outlook remains strong, and companies are continuing their steady march toward digital transformation. The survey asked respondents to characterize what phase they are in on their supply chain planning digital transformation journey: The majority (93%) are actively engaged in the process, with 31% in the executing phase, 25% in the exploring phase, 18% in the evaluation phase, 11% in the gaining support phase, and 8% in the reaping the benefits phase. Just 6% said they are not pursuing a digital transformation strategy at all—that's down from 10% who reported so in the 2021 CSCMP/ToolsGroup survey. *(See Figure 3)*

+ Figure 3 What stage of the supply chain digital transformation journey is your organization in?

Executing (implementing and deploying technology while getting people to adopt the required processes and tools) — **31%**

Exploring (establishing the catalyst for change and ranking ideas by how well they fit business and existing supply chain strategies, organizational capabilities, and customer needs) — **25%**

Evaluating (includes evaluation, estimating costs, project phasing, etc.) — **18%**

Gaining Broad Organizational Support (once funding is secured, gain broad support from the supply chain organization, set up steering committees, etc.) — **11%**

Reaping the Benefits (continuous improvement projects to scale and capture the full benefits) — **8%**

Not Pursuing (not considering a digital transformation project at this time) — **6%**

The findings echo the results of other industry research emphasizing the immediate need to digitally transform supply chains. This often means prioritizing digital supply chain investments in three main areas: visibility, planning, and collaboration[1]. Our findings reveal increasing investments in software, automation, and people that reinforce these trends.

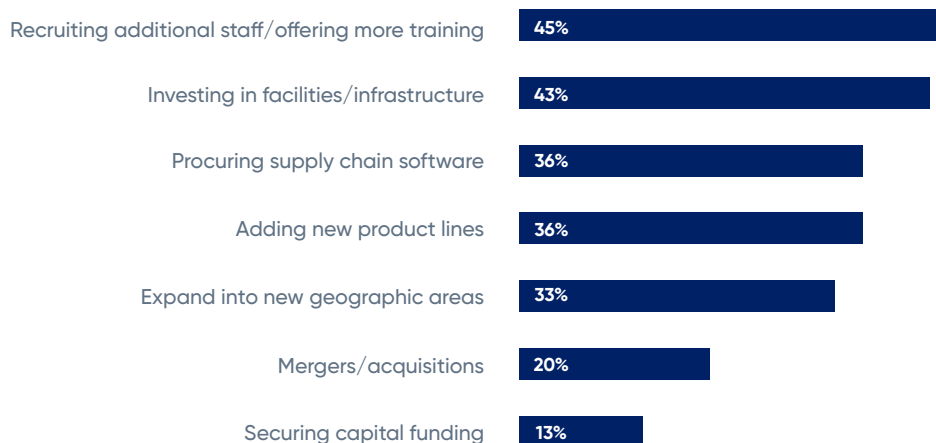**93% of companies say they are actively engaged in the digital transformation process**

[1] "How Disruption Accelerated Digital Supply Chain Transformation," Harvard Business Review, August 26, 2021. https://hbr.org/sponsored/2021/08/how-disruption-accelerated-digital-supply-chain-transformation

SET TO INVEST—IN AUTOMATION AND PEOPLE

The race is on to automate supply chain operations, a trend that intensified due to the COVID-19 pandemic. This is accompanied by a growing need to develop a sharper focus on people, both as a way to advance digital transformation strategies and address ongoing labor challenges. Recruiting additional staff/offering more training is the number one investment area for 2022 across all company sizes and stages of digitalization.

This was the case regionally as well, except for South and Central America, where procuring supply chain software is the top investment objective and people ranked fourth. Second to the people issue is facility and infrastructure investment, followed by procuring supply chain software and adding new product lines. *(See Figure 4)*

+ Figure 4 How will you invest for growth in 2022?

Recruiting additional staff/offering more training — 45%
Investing in facilities/infrastructure — 43%
Procuring supply chain software — 36%
Adding new product lines — 36%
Expand into new geographic areas — 33%
Mergers/acquisitions — 20%
Securing capital funding — 13%

Figures add to more than 100% due to multiple responses.

People also rank high when it comes to company objectives for supply chain planning digital transformation. More than half of companies surveyed said they plan to increase their level of automation this year as a way to focus their staff on higher value activities. Combined with the need to intensify recruiting and training efforts, this illustrates the profound effect current labor challenges are having on digital transformation strategies.

51% of companies say they will increase automation in 2022 to focus staff on higher value activities

Pandemic-driven labor shortages and the "great resignation" have left companies scrambling to find workers at all levels while also seeking ways to streamline tasks in order to better utilize the workforce that remains. Developing the right corporate culture can help alleviate these issues, especially when it comes to attracting candidates with the right skill sets for digital transformation. Recent McKinsey research on digital transformation strategies emphasizes the crucial role technology and automation play in appealing to current workforce wants and needs:

> **While money is important, those with top digital skills also want to hone their craft on cutting-edge technology and solve problems they perceive as meaningful. The CEO can drive changes in the company's culture and processes to appeal to them, work with the [chief human resource officer] to create flexible career pathways where they can grow their skills and progress professionally, and—perhaps most crucial—develop and communicate the company's higher purpose.[2]**

Other top objectives for 2022 include developing better and faster reactions to unplanned disruptions and increasing supply chain resilience. Strategies vary, however, depending on each company's digital transformation phase.

- Respondents in the **reaping the benefits phase** of digital transformation, for instance, listed "increasing supply chain resilience" as their number one digital planning objective for this year, as did companies with less than $100 million in annual revenue.

- Respondents in the **evaluating phase** identified "increase level of automation to focus staff on higher value activities" and "improve customer service levels/order fill rate" as their top two objectives.

- For companies **not pursuing digital planning at this time,** "increasing automation" and "improving customer service/order fill rate" were the lowest priorities.
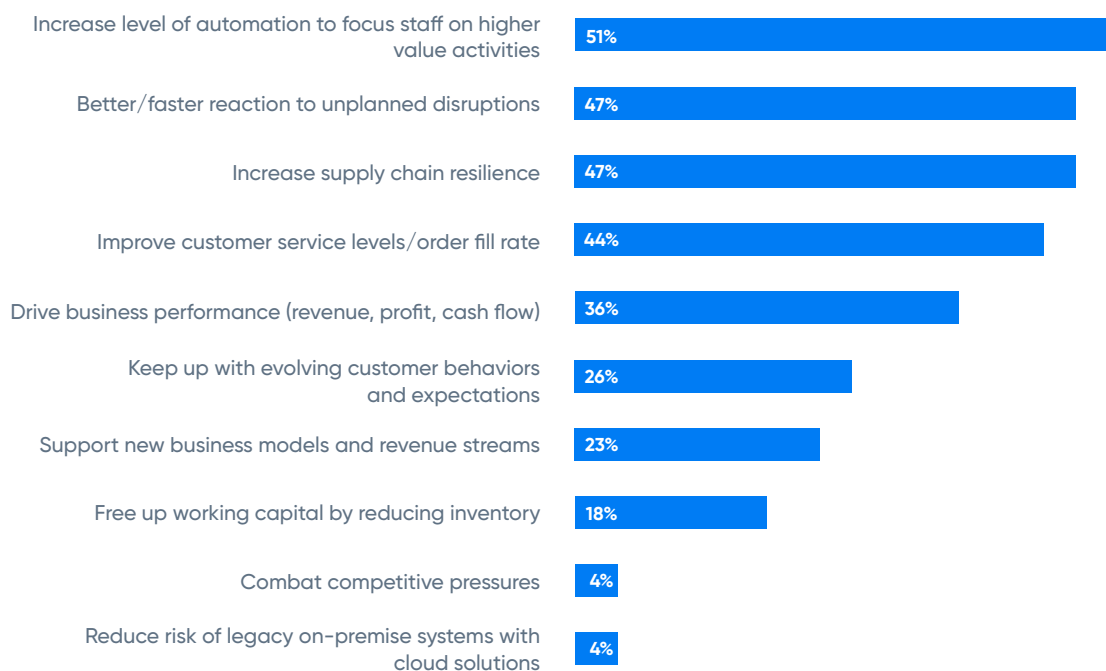
Overall, objectives for 2022 have shifted compared to previous reports. In 2021, for instance, companies said that "keeping up with evolving customer behaviors and expectations" was their primary concern, a factor that fell to number five this year. A word of caution: Companies should be careful not to forget their customers during these difficult and challenging times. *(See Figure 5)*

[2] "The Digital-Value Guardian: CEOs and Digital Transformations," McKinsey Digital, December 20, 2021.
https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-digital-value-guardian-ceos-and-digital-transformations

+ Figure 5 What are the primary objectives for supply chain planning digital transformation in your organization?

Increase level of automation to focus staff on higher value activities	51%
Better/faster reaction to unplanned disruptions	47%
Increase supply chain resilience	47%
Improve customer service levels/order fill rate	44%
Drive business performance (revenue, profit, cash flow)	36%
Keep up with evolving customer behaviors and expectations	26%
Support new business models and revenue streams	23%
Free up working capital by reducing inventory	18%
Combat competitive pressures	4%
Reduce risk of legacy on-premise systems with cloud solutions	4%

Figures add to more than 100% due to multiple responses.

OBSTACLES AND OPPORTUNITIES—PEOPLE RANK HIGH AGAIN

People are also the number one obstacle to implementing supply chain digital transformation plans—primarily because of a skills deficit. This was the case in the 2021 CSCMP/ToolsGroup report as well, but the problem is intensifying. Fifty-three percent of respondents this year listed people/ skills deficits as the main obstacle to digital transformation compared to just 41% last year. As a result, the need to re-skill and up-skill workers is becoming more vital, a trend that will continue as more tasks are automated and companies navigate the digital transformation process.[3]

Data quality remained the number two obstacle again this year—but this issue, too, is intensifying. More than 40% of respondents this year pointed to data quality as a roadblock, up nearly five percentage points compared with last year. This is likely because more companies are further down the digitalization path and are becoming more aware of the important role high-quality data plays in their digital transformation objectives.

[3] "Transforming supply chains: Do you have the skills to accelerate your capabilities?" McKinsey & Company, March 18, 2022. https://www.mckinsey.com/business-functions/operations/our-insights/transforming-supply-chains-do-you-have-the-skills-to-accelerate-your-capabilities

53% of companies say a skills deficit stands in the way of their digital transformation plans

Other obstacles to digitalization include: fear of change/risk aversion; COVID-related uncertainty (although this is waning compared with last year's results); a disconnect between IT and the business; and a "lack of a digital transformation roadmap". *(See Figure 6)*

+ Figure 6 What obstacles stand in the way of implementing your supply chain digital transformation plans?

Obstacle	Percentage
People skills/deficits	53%
Data quality/lack of data	41%
Fear of change/risk aversion	34%
COVID-related uncertainty	25%
Disconnect between IT and the business	24%
Lack of digital transformation roadmap	24%
Lack of investment	22%
Cannot prove the business case (ROI)	15%
Nothing is holding our organization back	11%

Figures add to more than 100% due to multiple responses.

Respondents were clear about the issues that are most crucial to their digital transformation success—again, people rose to the top of the list. Half of respondents said that a continued focus on people, process, technology and security implications is vital to delivering successful digital transformation results, followed by change management and effective communication, and the need to develop leadership-driven goals. *(See Figure 7)*

+ Figure 7 Which of the following are the most crucial to digital transformation success?

Continued focus on people, process, technology, and security implications	50%
Change management and effective communication	45%
Leadership-driven goals	43%
Defined future state vision and roadmap of initiatives	30%
Selecting the right technology innovations	29%
Stakeholder alignment	29%
Project management	20%
Business case and benefits realization benchmarking	18%
Thorough training programs	17%

Figures add to more than 100% due to multiple responses.

There are some slight differences in those priorities depending on a company's digital transformation phase, however:

- Companies in the **exploring phase** rank stakeholder alignment as a top-three factor, ahead of leadership-driven goals.

- Companies in the **evaluation phase** say that selecting the right technology innovations is a top-three goal, also ahead of leadership-driven goals.

This very likely reflects the need to prioritize projects and goals in the early stages of transformation, when planning and stakeholder buy-in are essential.
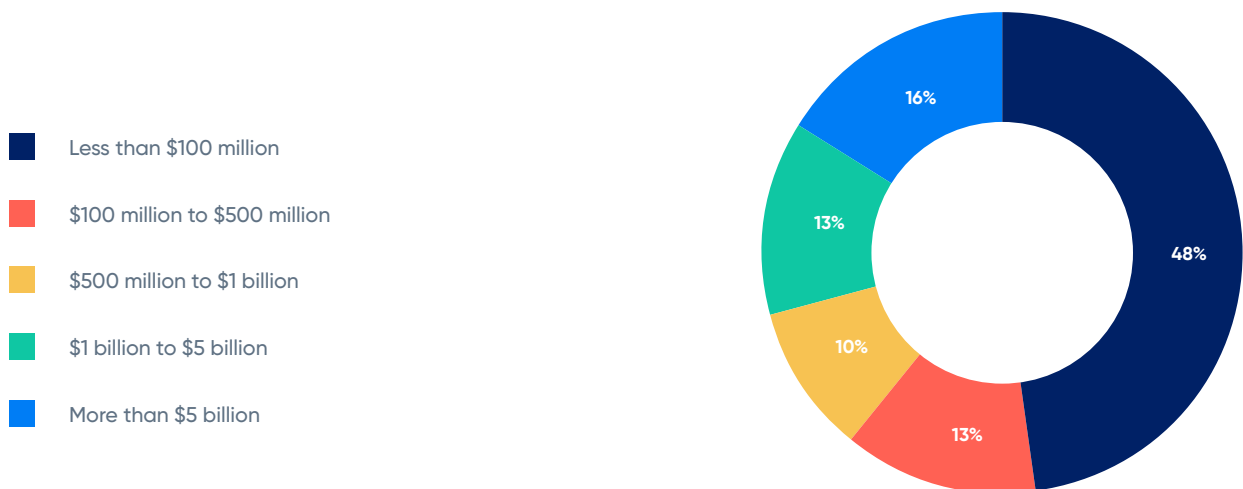
IN SUMMARY

Companies of all sizes and types are working to digitally transform their supply chains, with planning strategies that focus on making the most of people and automation in the face of unprecedented challenges.
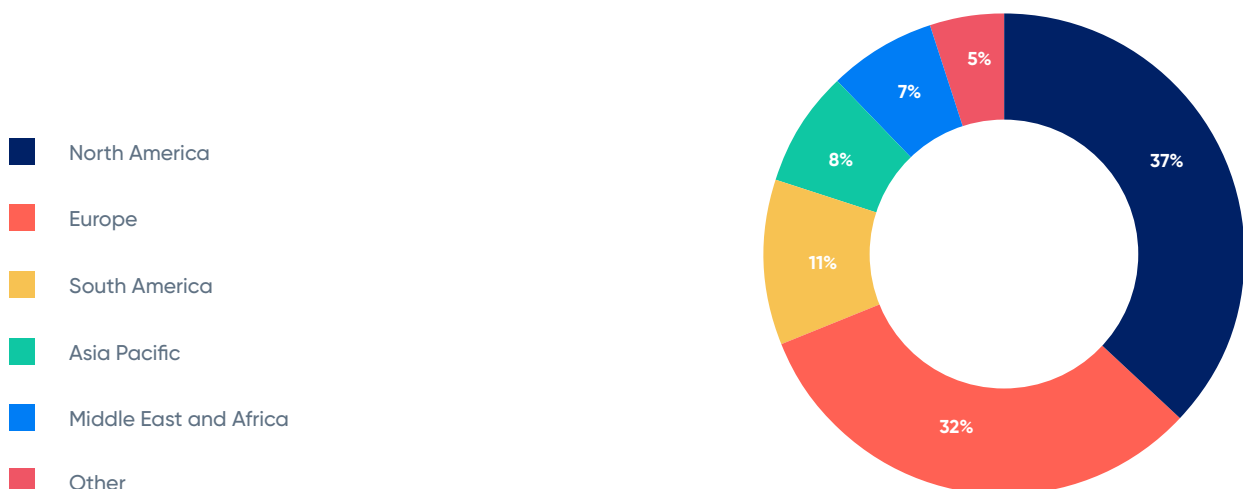
As they continue along that journey, companies across all business sectors will increase their financial investments in technology solutions that improve productivity and free existing employees for higher value functions, while also developing a sharper focus on recruiting, training, and retaining the talent needed to move their business forward. The past two years have put a spotlight on the need for digital planning, and most companies are responding with a greater focus on transforming their operations.
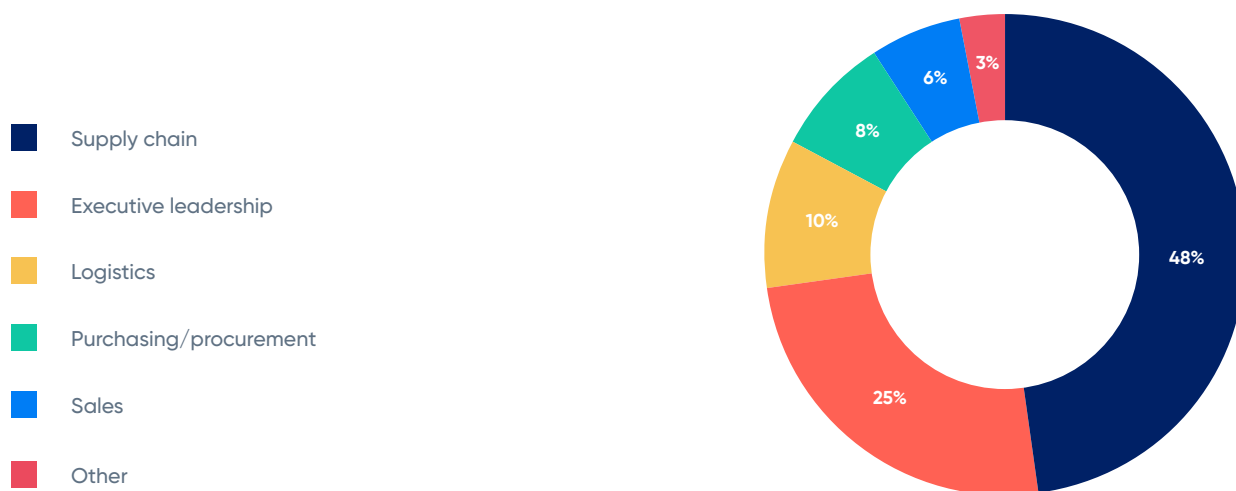
RESEARCH DEMOGRAPHICS

+ Figure 8 What is your company's approximate annual revenue?

- Less than $100 million
- $100 million to $500 million
- $500 million to $1 billion
- $1 billion to $5 billion
- More than $5 billion

48%
13%
10%
13%
16%

+ Figure 9 In what geographic region are you located?

- North America
- Europe
- South America
- Asia Pacific
- Middle East and Africa
- Other

37%
32%
11%
8%
7%
5%

+ Figure 10 Which best describes your functional responsibility?

- ■ Supply chain
- ■ Executive leadership
- ■ Logistics
- ■ Purchasing/procurement
- ■ Sales
- ■ Other

+ About CSCMP

Since 1963, the Council of Supply Chain Management Professionals (CSCMP) has been the preeminent worldwide professional association dedicated to the advancement and dissemination of research and knowledge on supply chain management. With CSCMP members located around the world representing nearly all industry sectors, government, and academic, CSCMP members receive unparalleled networking opportunities, cutting-edge research, and online and on-site professional educational opportunities. To learn more, visit **cscmp.org** and find CSCMP on social media: **Twitter, Facebook, LinkedIn, CSCMPtv,** and **Instagram.**

+ About ToolsGroup

ToolsGroup is how organizations improve product availability while right-sizing inventory, no matter how complex their supply chain is or how much demand changes. In a world that rarely follows the rules, our retail and supply chain planning suite optimizes and automates supply chains from production to purchase, enabling manufacturers, distributors and retailers to be ready for anything. That's why global leaders like Absolut and Harley-Davidson rely on us year after year. For more information, follow ToolsGroup on **LinkedIn, Twitter, YouTube,** or visit **www.toolsgroup.com.**

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