REGION FOCUS: WORLDWIDE

Driving Best-in-Class Supply Chain Collaboration with a Business Network

The risks, challenges, and opportunities of multi-enterprise collaboration


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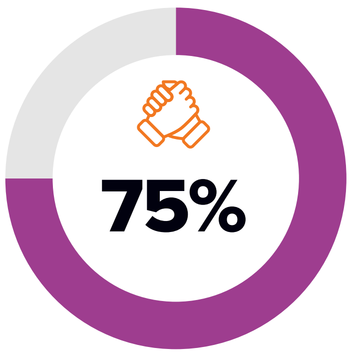
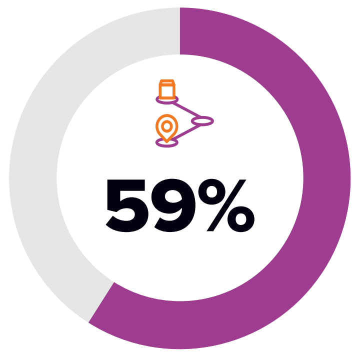
Executive Summary

- Although **better visibility into supply chains and more effective collaboration among supply chain participants are opportunities for both buyers and sellers,** progress has been slow, and significant improvement opportunities remain. Companies that are able to extend a business network beyond their own walls can gain a competitive advantage.
- Yesterday's technology remains prevalent despite digital technology's potential to drive transformation in the supply chain. **Faster access to data allows companies to more quickly respond to disruptions and to compress time to recovery.** This agility enables businesses to adapt to new opportunities.
- Companies have dedicated considerable resources to removing internal silos and digitalizing internal processes. **The next level of transformation is to collaborate externally and extend digital processes to trading partners.**
- The current turbulent business environment, together with the acknowledged benefits of collaboration, means that **the time to invest in a business network is now.**
- Systems that can automatically generate and share business documents and improve visibility reduce the risk that documents are lost or not accessed in a timely manner. **Automation also frees up staff to work on higher-value tasks.**

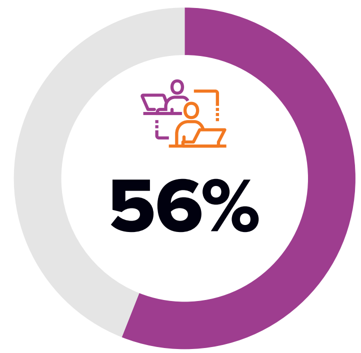
Visibility and Collaboration Are Challenges for Most Organizations



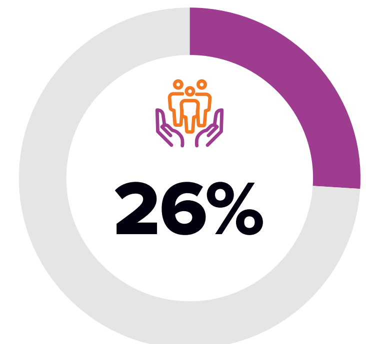
of organizations view collaboration as a work in progress.



of organizations said a lack of visibility in their supply chain makes it difficult to see necessary changes in time to react to them effectively.



of organizations believe a lack of effective collaboration with external suppliers is a significant impediment to better business performance.



view better collaboration as a key element of better managing risk.

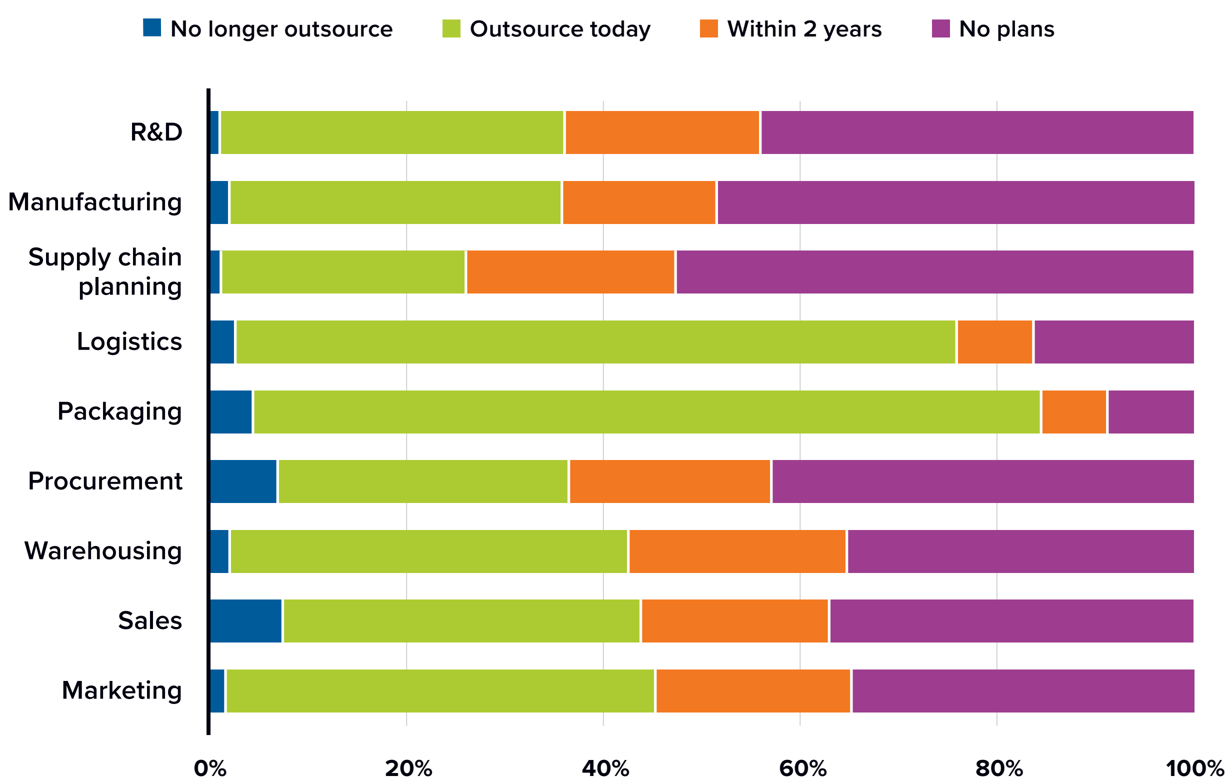
> Progressing true supply chain resiliency and investing in the technology transformation to achieve the necessary collaboration and speed is the top priority for our supply chain organization, both to be able to quickly respond to increasingly frequent disruptions, and to better adapt to new or changing business models as market forces dictate."
>
> Vice President, Supply Chain Planning, Food and Beverage Manufacturer

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

Ongoing Outsourcing Requires Greater Emphasis on Effective Collaboration

FIGURE 1

Which business functions has, does, or will your company outsource?



n = 2,110. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Use caution when interpreting small sample sizes.
Source: *Global Business Collaboration Networks Survey*, IDC, 2021
For an accessible version of the data in this figure, see Figure 1 Data in the Appendix.

- **87%** of companies outsource at least part of their operations.
- **18%** of operations are planned to be outsourced within the next two years. The focus is on R&D, supply chain planning, and procurement.
- Only **3%** are expected to be brought back in house.
- With rising levels of outsourcing, **companies struggle to maintain the same level of governance and insight** into operations.

> Over the last decade, the number of external suppliers we must manage has tripled. Our traditional approaches to collaboration simply cannot keep up."
>
> Supply Chain Planning Manager, High-Tech Company

Lack of Visibility Across the Supply Chain Is a Pain Point

FIGURE 2

Where is the focus for improving visibility?

(Percentage of respondents)

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

- The global events of the past three years have reinforced the **need for enhanced visibility across the supply chain.** Companies cannot react to what they don't see.
- Although **85% of companies have visibility initiatives,** traditional efforts have delivered marginal results, not the broad, end-to-end visibility that is required.
- A key value of a business network is the ability to **provide enhanced visibility and transparency** into the supply chain.
- A business network offers an opportunity for an approach that focuses on **collaborative visibility** and inherently better leverages full ecosystems.

Current Collaboration Systems Lack the Timely and Accurate Data that Supply Chains Need

FIGURE 3

What are the challenges, costs, and pitfalls that you encounter using your current system?

(Percentage of respondents)

> "The current pace of business requires that we get information quickly and accurately; our current collaboration approaches aren't particularly good at either."
>
> CIO/CTO, High-Tech Manufacturer

- When asked specifically about their ability to react to disruption, **63%** of respondents said that **incomplete information was their biggest problem.**
- **53%** said that **information timeliness** was also a significant problem.
- Regionally, respondents in Asia/Pacific view **information accuracy as most problematic.** In EMEA and the Americas, **timeliness is the bigger challenge.**
- **Information timeliness** is also viewed as significantly **more problematic** to the junior/operational personas within the supply chain.

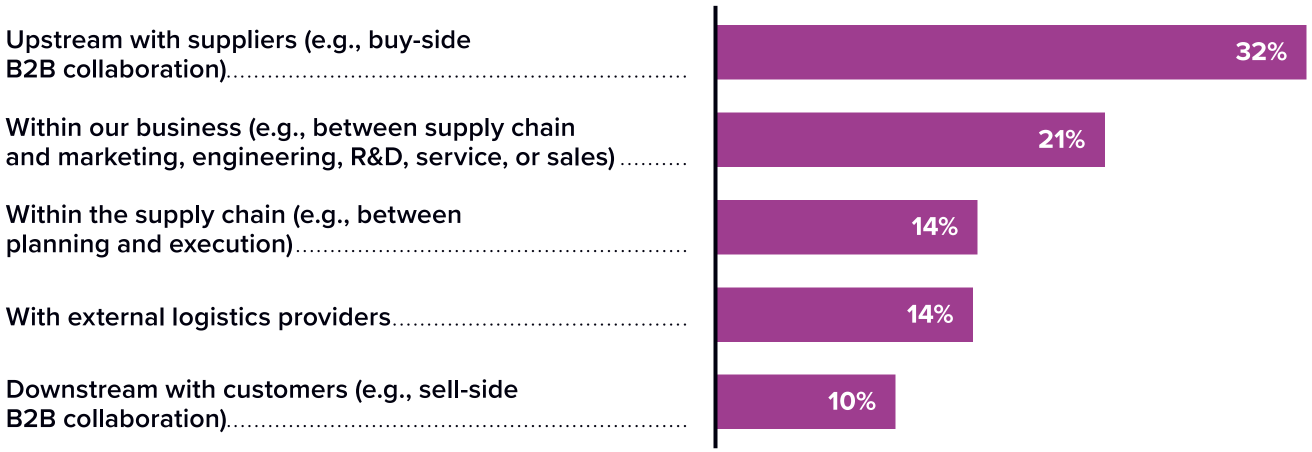
n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

In a Volatile Business Environment, Effective Collaboration Is an Opportunity

FIGURE 4

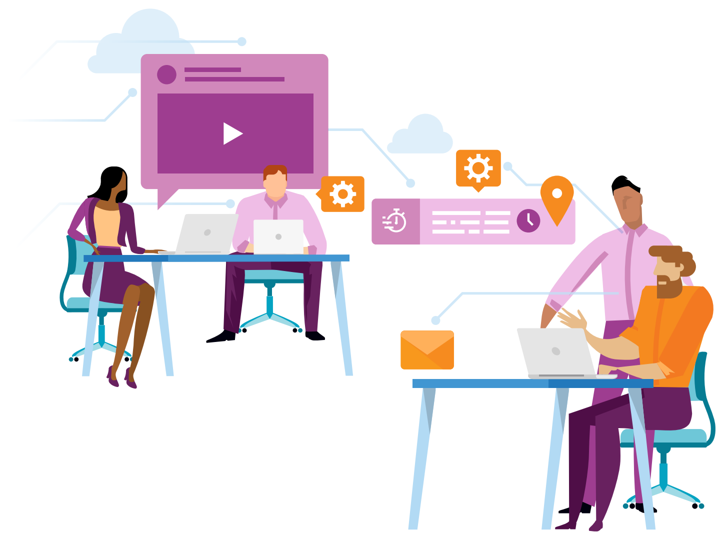
Where are your most pressing collaboration challenges?

(Percentage of respondents)



> You cannot overcommunicate with your core suppliers; frequent contact is absolutely required."
>
> CIO/CTO, High-Tech Manufacturer

- Companies regularly cite **upstream collaboration** as their **biggest opportunity.**
- **The mechanism to improve this collaboration** is elusive for most organizations.
- Close **collaboration with suppliers is critical,** especially during times of disruption.



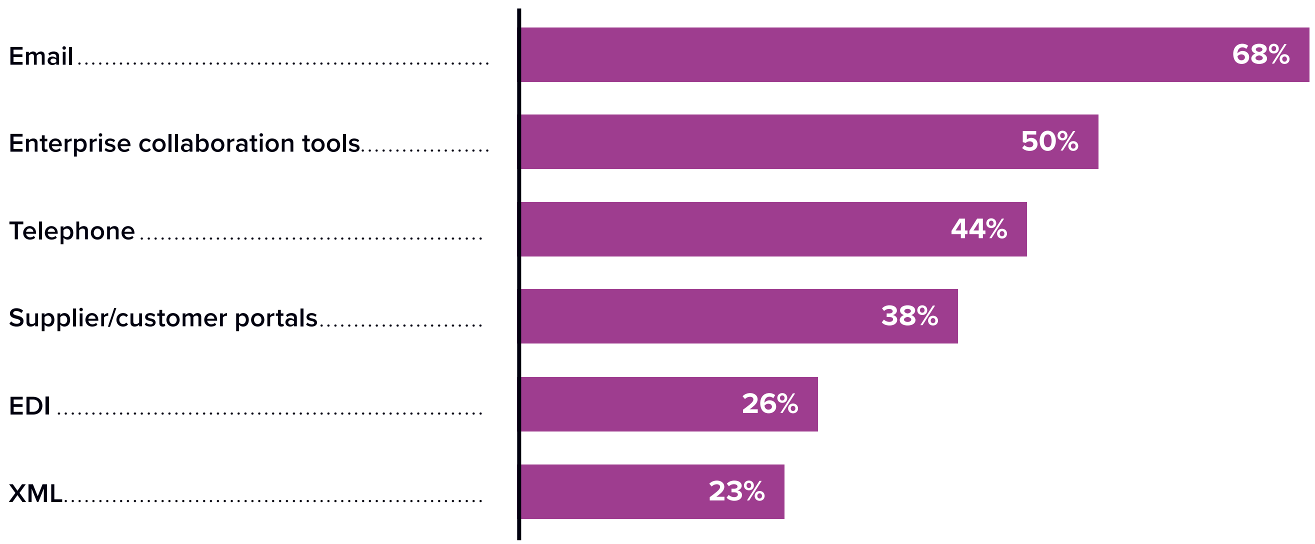
n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey,* IDC, January 2023

Companies Need Modern, Real-Time Communication Channels

FIGURE 5

How do you transmit and receive documents/information relevant to procurement commerce and supply chain collaboration with your supply base?

(Percentage of respondents)



n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group.
Data not weighted. Multiple dichotomous table, total will not sum to 100%.
Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

- **Email** remains the most common way in which companies conduct business, yet it **frequently fails to meet real-time collaboration** needs because it can be lost, not seen, or not understood.
- Dynamic, ever-changing business environments require **collaboration tools that can meet the speed of the business.**
- Although the use of network-based XML is growing, **legacy use of electronic data interchange** value-added networks (VANs) remains pervasive.

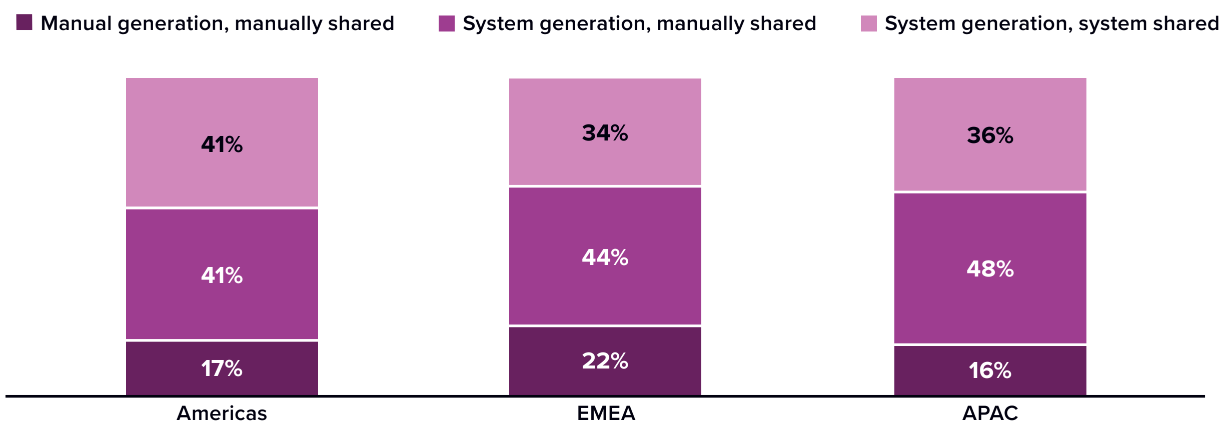
> "We need collaboration tools that match the speed of our business. Email or phone are just too slow. By the time we've reached a decision, the opportunity may have passed."
>
> Finance Director, Consumer Goods Manufacturer

Manual Processes Dominate External Sharing of Business Documents

FIGURE 6

Thinking about processes that originate from your enterprise resource planning (ERP) system, like purchase order and forecast documents, how do you share and collaborate on these documents with your suppliers?

(Percentage of respondents)



> We have largely digitized our internal processes but then rely on 'stone tablets' to collaborate with our suppliers."
>
> Procurement Manager, Textiles Manufacturer

- Most companies digitally generate documents internally, then rely on manual or analog processes to share externally. This **raises the risk that documents get lost** or are not as timely as needed.
- External digital collaboration with trading partners remains a significant opportunity. **Companies that are collaborating digitally gain a competitive advantage.**
- Although **North America is slightly more mature,** particularly in terms of automatically sharing documents externally, **significant room for progress remains.**
- **Consumer products are the most mature** industry for external sharing, with **life sciences the least mature.**

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

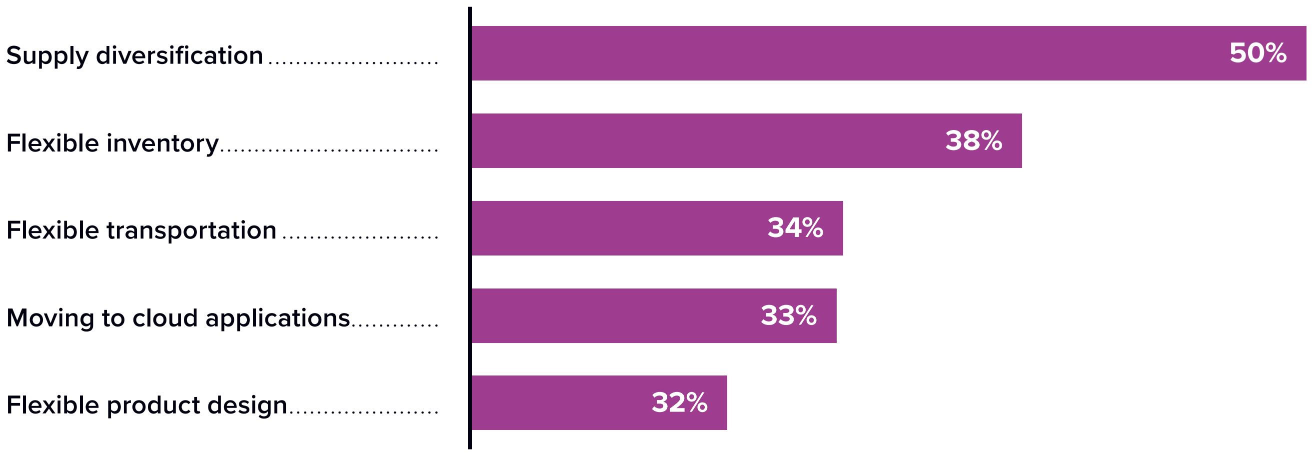
For an accessible version of the data in this figure, see Figure 6 Data in the Appendix.

Effectively Responding to Disruptions and Compressing Time to Recovery Requires Agility

FIGURE 7

Where is the focus for improving agility?

(Percentage of respondents)



> In order to be more agile and thus resilient, we need to diversify our supply base. This means more suppliers in more countries and a bigger collaboration challenge."
>
> CIO, High-Tech Manufacturer

- Organizations need improved tools to meet their **supply, supplier and procurement requirements** to be more agile.
- Although near-shoring has been getting press, most companies are diversifying sourcing to drive resiliency, **which requires better collaboration tools** across a more diverse supply base.
- Inflation has brought a resumed focus on inventory flexibility and efficiency, which requires **fast access to data and document automation.**

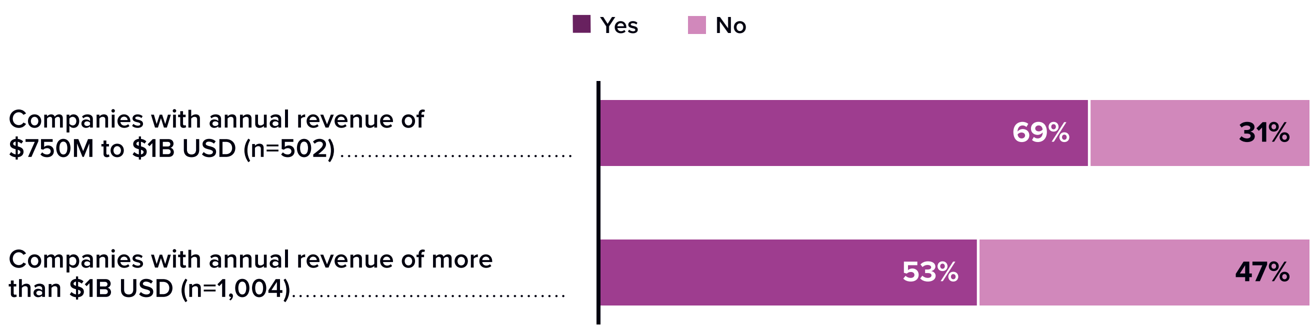
n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey,* IDC, January 2023

Company Size Impacts Ability to Respond Effectively to Disruptions

FIGURE 8

Does your current level of collaboration and/or visibility restrict your ability to react effectively to disruptions (such as weather, geopolitical conflicts, workforce disruptions, recession, etc.)?

(Percentage of respondents)



> Our ability to respond to disruptions is entirely dependent on our ability to quickly collaborate with affected suppliers."
>
> Chief Procurement Officer, Automotive Company

- **Smaller companies** with more limited resources are affected more significantly by **lack of insight into supply chains and partner collaboration.**
- More than half of the larger companies still see collaboration as a barrier to effective response to disruptions.

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

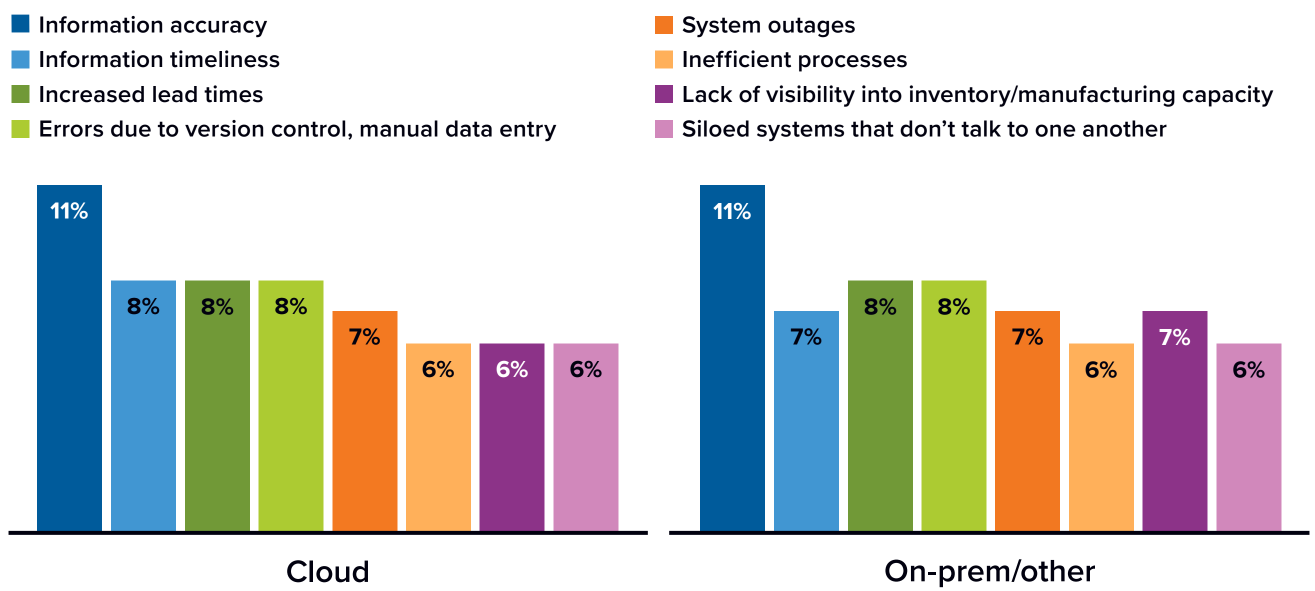
For an accessible version of the data in this figure, see Figure 8 Data in the Appendix.

Collaboration System Location Matters Less Than Effectiveness and Speed

FIGURE 9

What are the challenges, costs, and pitfalls that you encounter using your current collaboration system?

(Percentage of respondents)



n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

For an accessible version of the data in this figure, see Figure 9 Data in the Appendix.

- Whether in the cloud or on-premises, **supplier collaboration methods need to be addressed.**
- **Cloud systems are not immune to data errors.** Regardless of system location, companies struggle with version control and manual data errors.
- If companies are not networked to their suppliers and are not extending processes beyond their own four walls, it doesn't matter if they are in the cloud or on-premises.
- When **cloud ERP is integrated** with other modern supplier collaboration systems, information accuracy **problems decline by 50%**.

Companies can connect to a business network from any ERP, but moving to the cloud will provide additional efficiencies and data.

Industry Spotlight: Consumer Products

FIGURE 10

What processes in your department(s) are automated?

(Percentage of respondents)

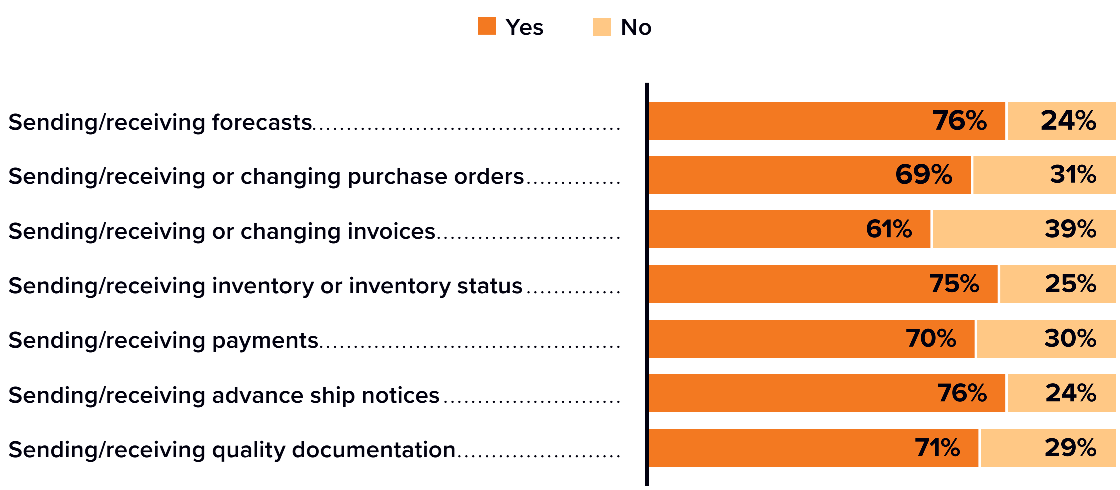
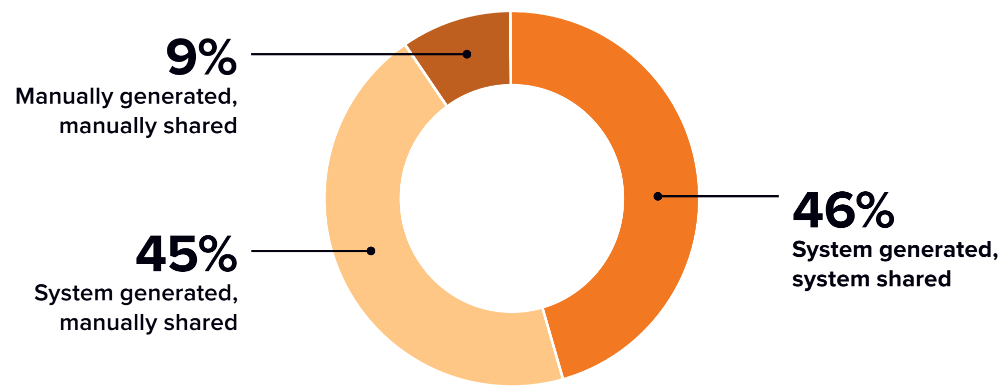


FIGURE 11

Thinking about processes that originate from your ERP, like PO and forecast documents, how do you share and collaborate on these documents with your suppliers?

(Percentage of respondents)



n = 127. Base = Consumer Products Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023
For an accessible version of the data in Figure 10, see Figure 10 Data in the Appendix.

- Better collaboration offers significant business benefits including **improved information accuracy (41%) and fewer data entry errors (38%).**
- With the improved visibility that better collaboration tools provide, **companies have greater insight into inventory** and can quickly get products to customers as needed.
- Improved supply chain visibility means **better service performance and greater customer satisfaction,** which correlates to improved topline revenue.
- The consumer products industry faces staffing shortages to handle basic processes, such as payments. **Automating these tasks frees up employees for higher-value activities,** such as handling exceptions to ensure supply assurance and customer satisfaction.
- Given the importance of quality in this industry, it is notable that the primary **benefit for better collaboration in direct materials is quality control.**

Industry Spotlight: Industrial Manufacturing

FIGURE 12

What processes in your department(s) are automated?

(Percentage of respondents)

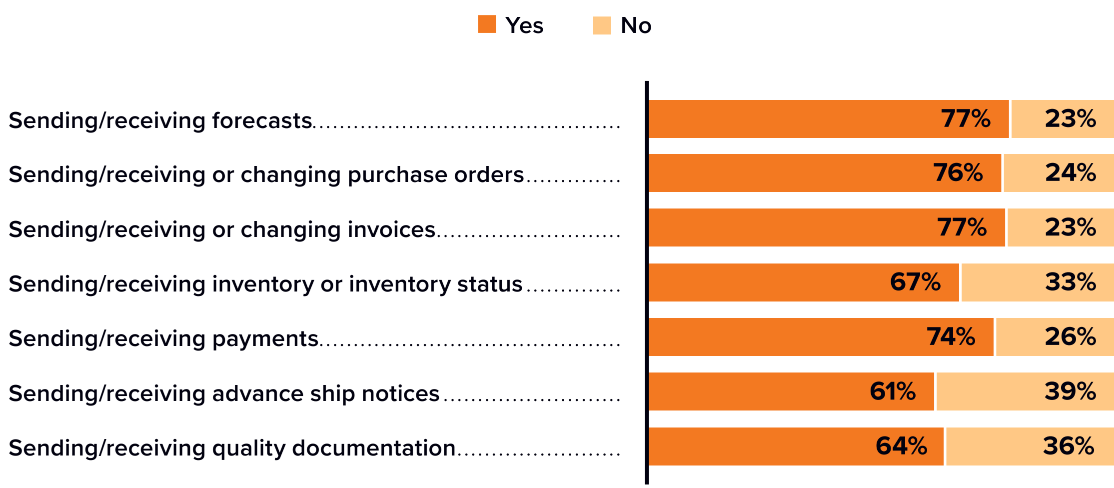
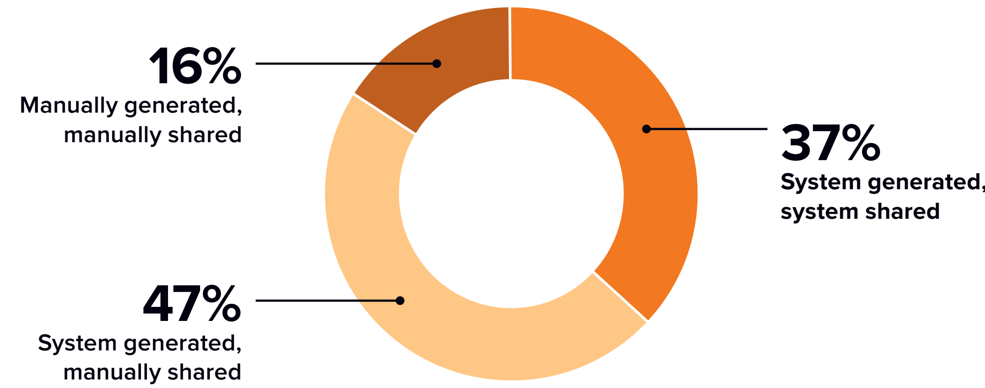


FIGURE 13

Thinking about processes that originate from your ERP, like PO and forecast documents, how do you share and collaborate on these documents with your suppliers?

(Percentage of respondents)



n = 124. Base = Industrial Manufacturing Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023
For an accessible version of the data in Figure 12, see Figure 12 Data in the Appendix.

- Quality collaboration is particularly important for this industry. Highly engineered product means that **poor quality collaboration with suppliers has a ripple effect** throughout the entire manufacturing process.
- Industrial manufacturing is dealing with increasing lead times, both for supply and finished goods, along with more frequent delivery time inquiries. That **75% of industrial manufacturing companies use email as their primary way of collaborating** is not conducive to quick and clear resolution.
- Companies that lack visibility into inventory **run the risk of expensive delays** in the manufacturing process.
- Staffing shortages are affecting inventory management, which could be better handled by **using supplier managed inventory (SMI) and better collaboration.**
- More effective collaboration in this industry results in **improved information accuracy (44%) and timeliness (43%) and reduces data and data entry errors (39%).**

Industry Spotlight: Life Sciences

FIGURE 14

What processes in your department(s) are automated?

(Percentage of respondents)

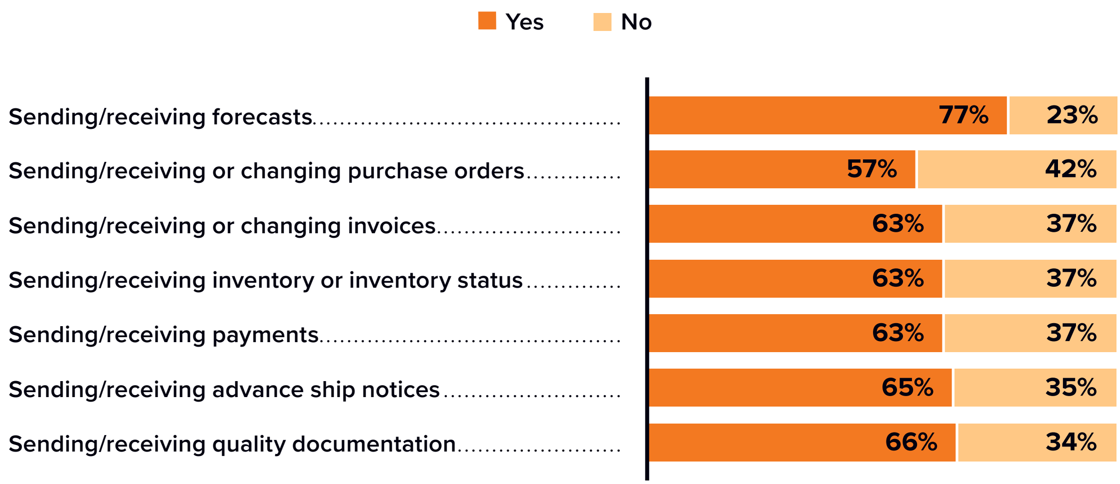
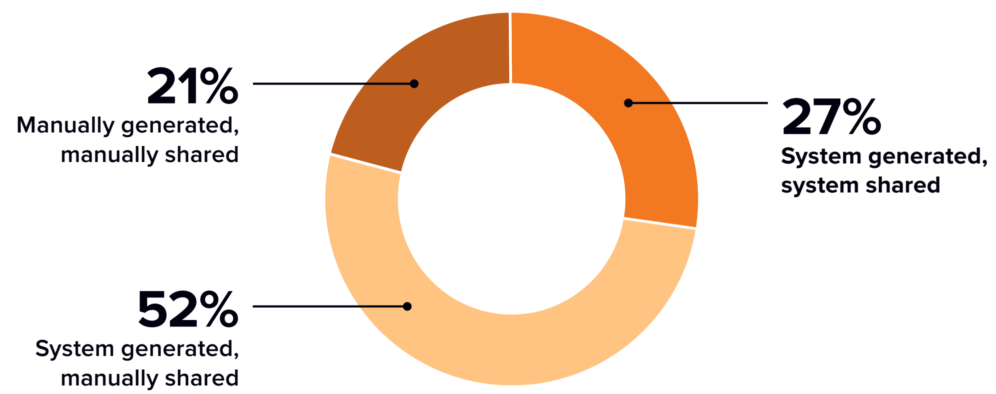


FIGURE 15

Thinking about processes that originate from your ERP, like PO and forecast documents, how do you share and collaborate on these documents with your suppliers?

(Percentage of respondents)



n = 124. Base = Life Sciences Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023
For an accessible version of the data in Figure 14, see Figure 14 Data in the Appendix.

- Business resilience depends in part on the ability to flexibly address inventory and transportation. **62% of life sciences companies said that poor collaboration limits their ability to respond effectively to disruptions.**
- **Product quality and supplier quality collaboration is a top priority** for this industry. Visibility into quality, both within the four walls and upstream to supply, remains a significant opportunity.
- Although this industry is somewhat more mature in their collaboration capabilities, with less usage of email overall, **over 70% are still sharing documents manually.**
- **69% of life sciences companies use email as their primary way of transmitting and receiving documents** though they are somewhat more progressed in their use of collaboration tools like Slack and Microsoft Teams.
- Better collaboration in this industry results in improved **information timeliness (51%) and accuracy (42%) and allows for the ability to address quality issues earlier (36%).**

Industry Spotlight: High-Tech

FIGURE 16

What processes in your department(s) are automated?

(Percentage of respondents)

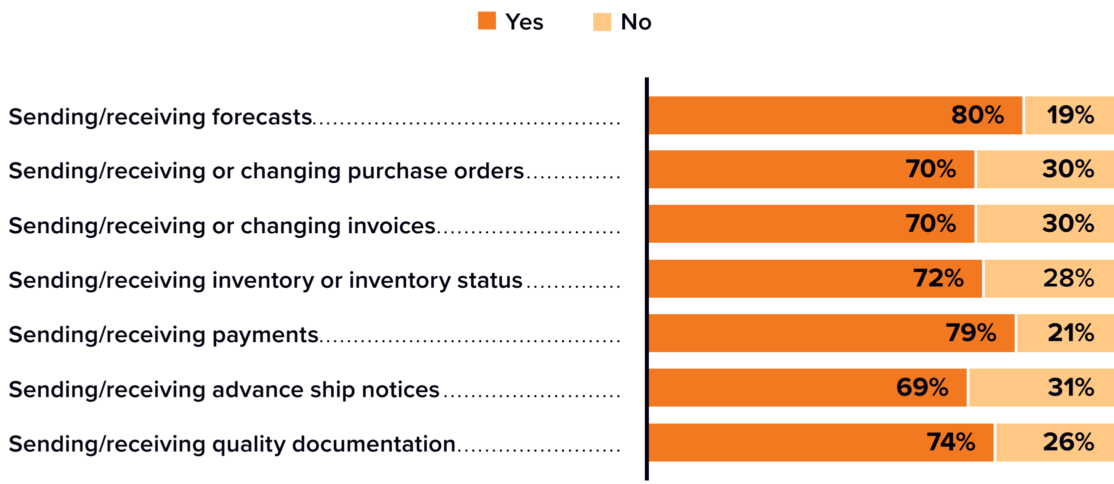
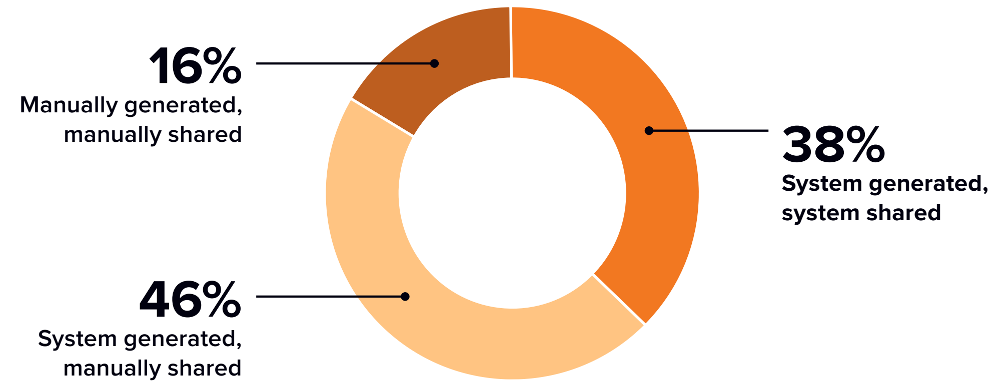


FIGURE 17

Thinking about processes that originate from your ERP, like PO and forecast documents, how do you share and collaborate on these documents with your suppliers?

(Percentage of respondents)



n = 128. Base = High-Tech Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023
For an accessible version of the data in Figure 16, see Figure 16 Data in the Appendix.

- Half of high-tech companies say that **improved collaboration with suppliers leads to higher revenue and profits and more reliable assurance of supply.**
- Improved collaboration also means that **people can be better utilized and focused on higher value tasks.**
- Two-thirds of companies reported that **increased visibility across the entire supply chain would enable them to respond to disruption more effectively and efficiently and reduce time to recovery.**
- **77% of high-tech companies use email as their primary way of transmitting and receiving documents.**
- Better collaboration results in an **ability to address quality issues earlier (42%), improves information accuracy (39%), and provides real-time visibility into inventory/manufacturing capacity (37%).**

Digital Initiatives Diminish the Impact of Operational Shocks

FIGURE 18
Revenue performance index
(Index score)

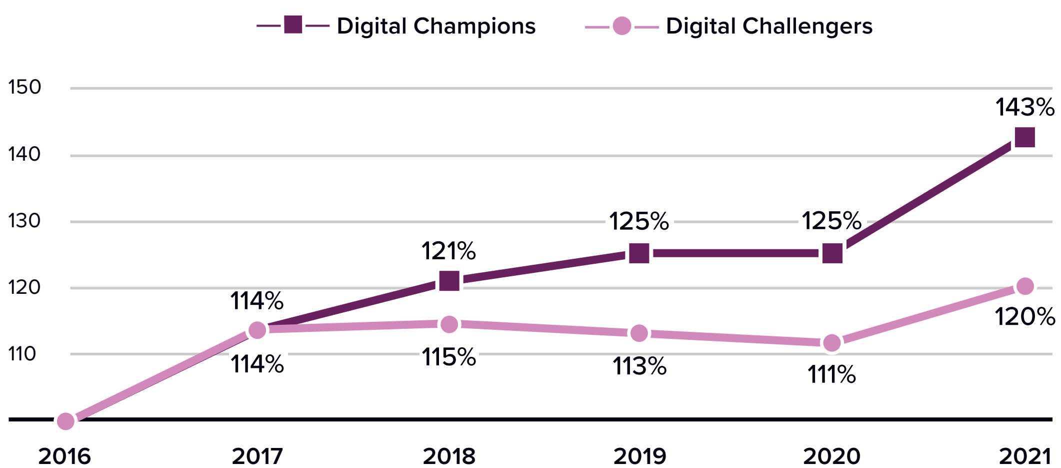
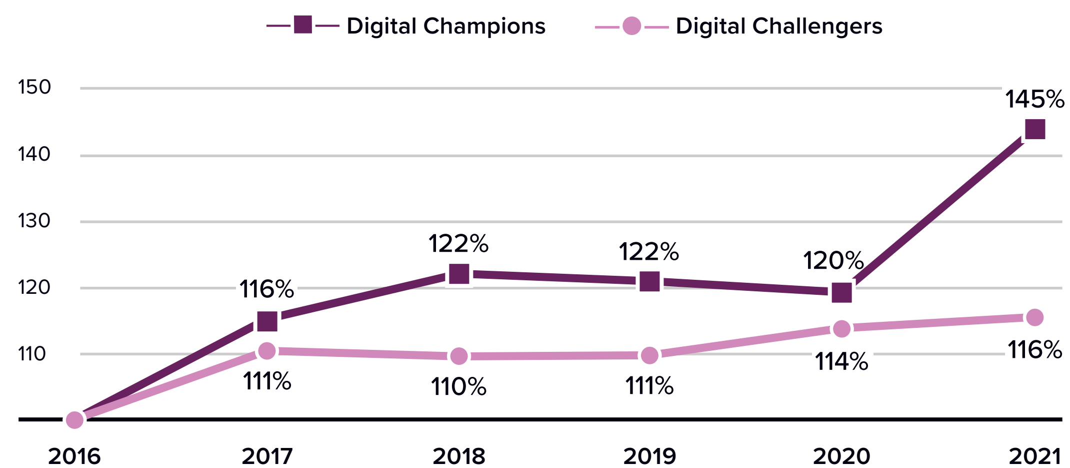


FIGURE 19
Profit performance index
(Index score)



- **Digital maturity** (cloud, artificial intelligence and analytics, business networks) correlates highly with **improved business performance.**
- Manufacturers with coordinated **digital transformation efforts result in higher-than-average returns.**

> "The use of modern, cloud-based tools like AI, analytics, and business networks have allowed us to be nimble and better respond to external business pressures."
>
> IT Executive, Consumer Products Company

n = 3,129 for global manufacturers; n = 614 (~20%) for digital champions; n = 2,515 (~80%) for digital challengers. Source: *Industry Performances Indices: Worldwide Manufacturing*, IDC, 2023
For an accessible version of the data in these figures, see Figure 18 Data and Figure 19 Data in the Appendix.

Data Accuracy and Integrity Are the Primary Benefits of Improved Collaboration

FIGURE 20

What benefits does improved collaboration provide?

(Percentage of respondents)

- **Information accuracy and timeliness are central** to supply chain resiliency and operational efficiency, especially in volatile environments. You have to trust what you are getting and be able to act or react within necessary timelines.
- **Quality is important** across all industries.

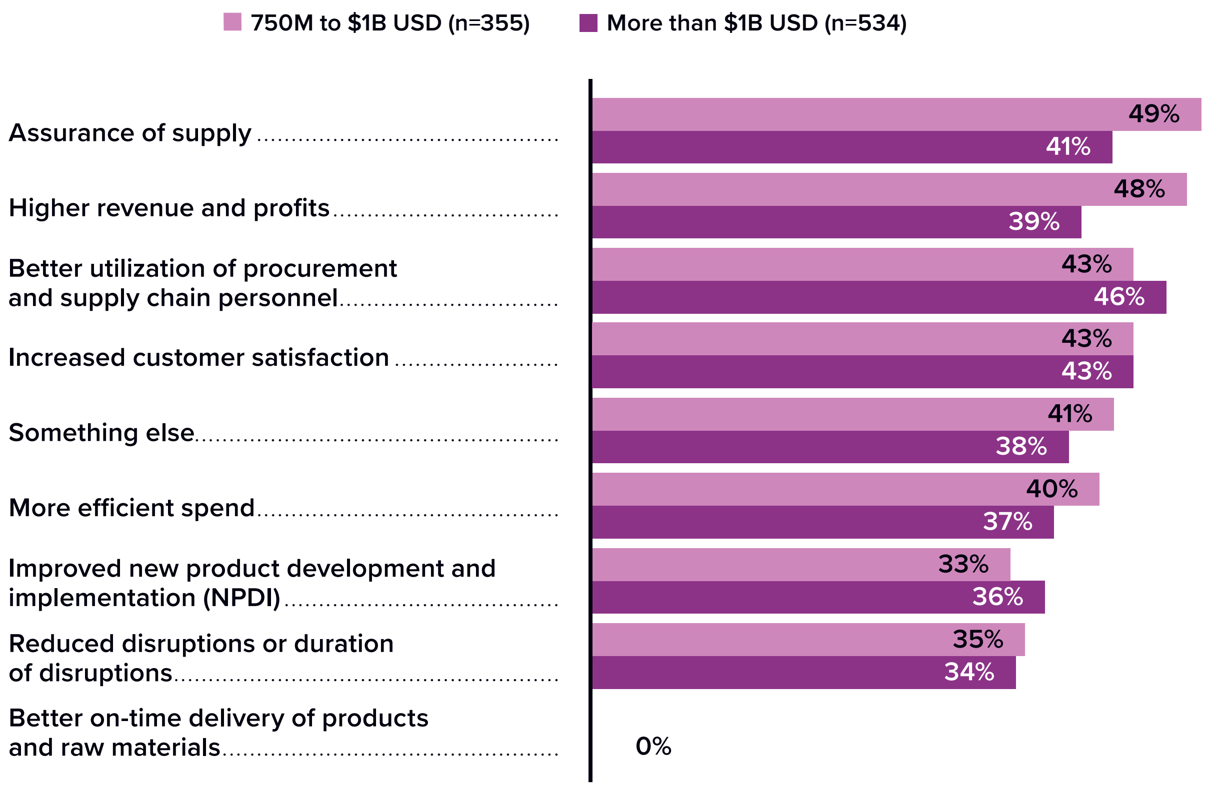
n = 1,002. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted; multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

Better Collaboration Translates to Faster Recovery and Ability to Weather Disruptions

FIGURE 21

What benefits does improved collaboration provide?

(Percentage of respondents)



- **Supply assurance and profitability** are seen as the two attributes most affected by better and more timely/complete information.
- **Assurance of supply is the top benefit** of improved collaboration for companies in the Americas.
- **Better use of procurement/supply chain** personnel is the top benefit for companies in EMEA.
- **Increased customer satisfaction** is the top benefit for companies in APAC.
- Companies in all three regions expect **better collaboration to increase revenues and profits.**
- The view is similar across industries, with all variously **expecting higher revenues** and profits, assurance of supply, increased customer satisfaction, and better utilization of staff resources.

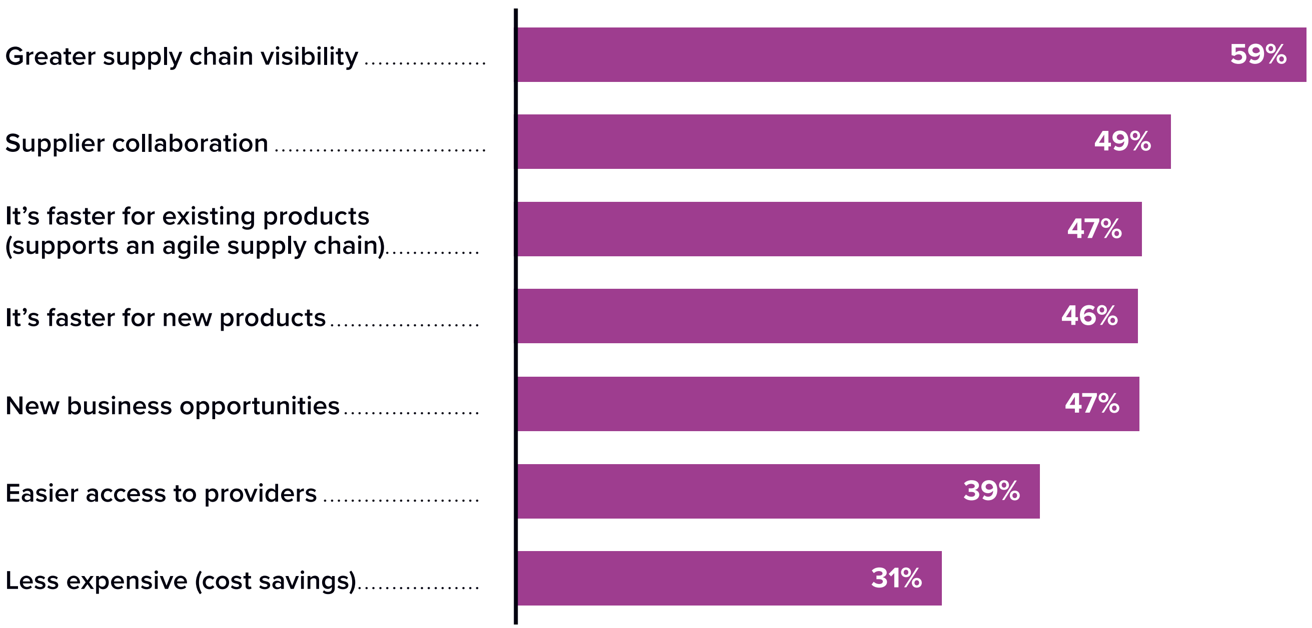
n = 889. Base = respondents believe that business opportunities are missed because collaboration with the suppliers is poor/limited. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes.
Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023. For an accessible version of the data in this figure, see Figure 21 Data in the Appendix.

Fast Movers Continue to Report a Broad Range of Benefits

FIGURE 22

What have been the benefits of participation in a B2B commerce network?

(Percentage of respondents)



n = 1,540. Source: *IDC's Supply Chain Survey*, IDC, March 2023.

- **55%** of manufacturers participate in at least one **B2B commerce** network.
- The benefits of network participation play well in a disruptive environment, notably **greater visibility and better supplier collaboration.**
- **Speed is particularly important** when alternative sources of supply are limited and overall resources are constrained.

IDC Essential Guidance

Drive better business performance with a business network through:

- **Extended collaboration** with a more diversified and outsourced supply base
- More **accurate and timely information** for better decision making
- The ability to **see and respond to disruptions** at scale
- **Extended digital process and document sharing** with external trading partners
- A better utilization of **supplies and people**
- **Higher revenue and profit** by seizing on new opportunities and quickly assessing and responding to threats

Appendix: Supplemental Data

The tables in this appendix provide an accessible version of the data for the complex figures in this document. Click "Return to original figure" below each table to get back to the original data figure.

DATA FROM FIGURE 1

Which business functions has, does, or will your company outsource?

	R&D	Manufacturing	SC Planning	Logistics	Packaging	Procurement	Warehousing	Sales	Marketing
No longer outsource	1.0%	2.0%	1.1%	2.7%	4.4%	7.0%	2.0%	7.4%	1.6%
Outsource today	35.0%	34.0%	24.9%	73.1%	80.1%	29.5%	40.6%	36.5%	43.6%
Within 2 years	20.0%	16.0%	52.7%	16.3%	8.8%	42.9%	35.2%	36.9%	34.8%
No plans	44.0%	49.0%	52.7%	16.3%	8.8%	42.9%	35.2%	36.9%	34.8%

n = 2,110. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Use caution when interpreting small sample sizes. Source: *Global – Business Collaboration Networks Survey*, IDC, 2021

Return to original figure

Appendix: Supplemental Data (continued)

DATA FROM FIGURE 6

Thinking about processes that originate from your enterprise resource planning (ERP) system, like purchase order and forecast documents, how do you share and collaborate on these documents with your suppliers?

	Manual generation, manually shared	System generation, manually shared	System generation, system shared
Americas	16.7%	41.5%	41.8%
EMEA	21.9%	44.4%	33.7%
APAC	15.7%	48.2%	36.1%

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

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DATA FROM FIGURE 8

Does your current level of collaboration and/or visibility restrict your ability to react effectively to disruptions (such as weather, geopolitical conflicts, workforce disruptions, recession, etc.)?

	Companies with annual revenue of $750M to 1B USD (n=502)	Companies with annual revenue of more than $1B USD (n=1,004)
Yes	68.9%	53.4%
No	31.1%	46.6%

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

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Appendix: Supplemental Data (continued)

DATA FROM FIGURE 9

What are the challenges, costs, and pitfalls that you encounter using your current collaboration system?

	Cloud	On-Prem/Other
Information accuracy	11.0%	11.0%
Information timeliness	8.0%	7.0%
Increased lead times	8.0%	8.0%
Errors due to version control, manual data entry	8.0%	8.0%
System outages	7.0%	7.0%
Inefficient processes	6.0%	6.0%
Lack of visibility into inventory/ manufacturing capacity	6.0%	7.0%
Siloed systems that don't talk to one another	6.0%	6.0%

n = 1,506. Base = all respondents. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

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DATA FROM FIGURE 10

What processes in your department(s) are automated?

	Yes	No
Sending/receiving forecasts	76.4%	23.6%
Sending/receiving or changing purchase orders	69.3%	30.7%
Sending/receiving or changing invoices	60.6%	39.4%
Sending/receiving inventory or inventory status	74.8%	25.2%
Sending/receiving payments	70.1%	29.9%
Sending/receiving advance ship notices	76.4%	23.6%
Sending/receiving quality documentation	70.9%	29.1%

n = 127. Base = Consumer Products Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

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Appendix: Supplemental Data (continued)

DATA FROM FIGURE 12

What processes in your department(s) are automated?

	Yes	No
Sending/receiving forecasts	77.4%	22.6%
Sending/receiving or changing purchase orders	75.8%	24.2%
Sending/receiving or changing invoices	76.6%	23.4%
Sending/receiving inventory or inventory status	66.9%	33.1%
Sending/receiving payments	74.2%	25.8%
Sending/receiving advance ship notices	61.3%	38.7%
Sending/receiving quality documentation	63.7%	36.3%

n = 124. Base = Industrial Manufacturing Industry Only. Note: : Managed by IDC's Global Primary Research Group. Data not weighted; multiple dichotomous table, total will not sum to 100%, Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey,* IDC, January 2023

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DATA FROM FIGURE 14

What processes in your department(s) are automated?

	Yes	No
Sending/receiving forecasts	76.6%	23.4%
Sending/receiving or changing purchase orders	57.3%	42.7%
Sending/receiving or changing invoices	62.9%	37.1%
Sending/receiving inventory or inventory status	62.9%	37.1%
Sending/receiving payments	62.9%	37.1%
Sending/receiving advance ship notices	65.3%	34.7%
Sending/receiving quality documentation	66.1%	33.9%

n = 124. Base = Life Sciences Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey,* IDC, January 2023

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Appendix: Supplemental Data (continued)

DATA FROM FIGURE 16

What processes in your department(s) are automated?

	Yes	No
Sending/receiving forecasts	80.5%	19.5%
Sending/receiving or changing purchase orders	70.3%	29.7%
Sending/receiving or changing invoices	70.3%	29.7%
Sending/receiving inventory or inventory status	71.9%	28.1%
Sending/receiving payments	78.9%	21.1%
Sending/receiving advance ship notices	68.8%	31.3%
Sending/receiving quality documentation	74.2%	25.8%

n = 128. Base = High-Tech Industry Only. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%. Use caution when interpreting small sample sizes. Source: *Global Supply Chain Business Collaboration Networks Survey*, IDC, January 2023

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FIGURE 18 DATA

Revenue performance index

	2016	2017	2018	2019	2020	2021
Digital Champions	100.0%	113.6%	121.0%	125.1%	124.8%	142.8%
Digital Challengers	100.0%	113.7%	114.6%	113.1%	111.5%	120.2%

n = 3,129 for global manufacturers; n = 614 (~20%) for digital champions; n = 2,515 (~80%) for digital challengers. Source: *Industry Performances Indices: Worldwide Manufacturing*, IDC, 2023

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FIGURE 19 DATA

Profit performance index

	2016	2017	2018	2019	2020	2021
Digital Champions	100.0%	115.7%	122.7%	121.6%	119.8%	145.2%
Digital Challengers	100.0%	111.0%	109.9%	110.8%	114.0%	115.6%

n = 3,129 for global manufacturers; n = 614 (~20%) for digital champions; n = 2,515 (~80%) for digital challengers. Source: *Industry Performances Indices: Worldwide Manufacturing*, IDC, 2023

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Appendix: Supplemental Data (continued)

DATA FROM FIGURE 21

What benefits does improved collaboration provide?

	$750M to $1B USD (n=355)	More than $1B USD (n=534)
Reduced disruptions or duration of disruptions	34.6%	33.9%
Improved new product development and implementation (NPDI)	33.5%	36.3%
More efficient spend	40.6%	36.9%
Higher revenue and profits	47.6%	39.1%
Something else	41.7%	38.2%
Assurance of supply	48.7%	41.6%
Increased customer satisfaction	43.4%	43.4%
Better utilization of procurement and supply chain personnel	43.4%	45.9%
Better on-time delivery of products and raw materials	0.0%	0.2%

n = 889. Base = respondents believe that business opportunities are missed because collaboration with the suppliers is poor/limited. Note: Managed by IDC's Global Primary Research Group. Data not weighted. Multiple dichotomous table, total will not sum to 100%.
Use caution when interpreting small sample sizes. Source: *Global Supply Chain*

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About the IDC Analysts

Simon Ellis
Program Vice President, IDC

As a program vice president, Simon Ellis is responsible for providing research, analysis and guidance on key business and IT issues for manufacturers. He currently leads the supply chain strategies practices at IDC Manufacturing Insights, one of IDC's industry research companies that addresses the current market gap by providing fact-based research and analysis on best practices and the use of information technology to assist clients in improving their capabilities in critical process areas. Within the supply chain practice, Simon is directly responsible for the research in the supply chain planning strategies practice while also managing the supply chain execution strategies practice. These supply chain practices specialize in advising clients on supply chain network design, sales and operations planning (S&OP), global sourcing (profitable proximity and low-cost sourcing), transportation, logistics, and more. He also supports IDC Retail Insights IT strategies practices.

More about Simon Ellis

Mickey North Rizza
Group Vice President,
Enterprise Software, IDC

Mickey leads the Enterprise Applications and Strategies research service along with a team of analysts responsible for IDC's coverage of next generation of enterprise applications including digital commerce, employee experience, enterprise asset management and smart facilities, ERP, financial applications, HCM and payroll applications, procurement, professional services automation and related project-based solutions software, supply chain automation, and talent acquisition and strategies. In her role, Mickey and the team advises clients on these intelligent, modern, and modular enterprise applications for businesses of all sizes with an emphasis on the key trends, opportunities, innovation and the IT and Business Buyer concerns, requirements, and buyer behaviors.

More about Mickey North Rizza

About the IDC Analysts (continued)

Patrick Reymann
Research Director, Procurement and Enterprise Applications

Patrick Reymann is research director for Procurement and Enterprise Applications responsible for the worldwide procurement applications market. Mr. Reymann's core research coverage includes the worldwide research of purchasing, procure to pay, sourcing, buy-side contract management, spend analysis, and supplier relationship management (including supplier information, risk, and performance management) applications, among others that the procurement function touches within an organization. He is also focused on procurement digital transformation use cases, the procurement buyer's journey, innovative workflows, and the issues faced with technology selection, implementation and usage as organizations add or integrate with other solutions. Patrick's overall goal will be setting up procurement for the digital-first world, while enabling better procurement products and solutions for organizations to utilize in their quest for digital world excellence.

More about Patrick Reymann

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