

# THE **SCARCITY** ECONOMY

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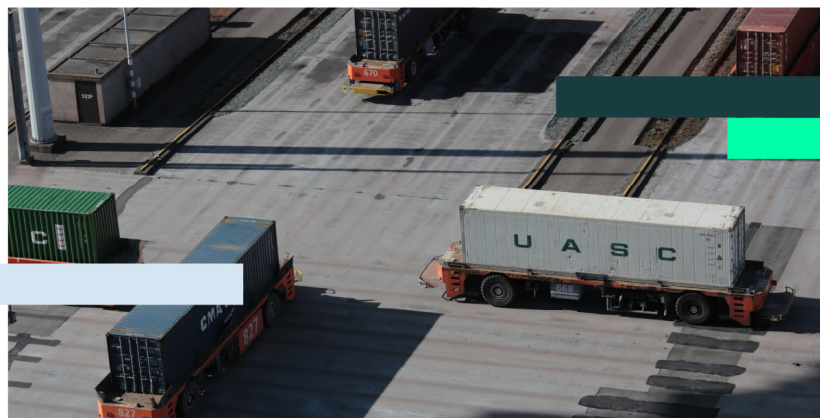
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Scarcity. Shortages. Delays. Resignations. It is clear that the difficulty in obtaining both products and people has become part of daily life. What is less clear is whether businesses are prepared for an environment in which scarcity replaces abundance and whether this is a fundamental change or a temporary imbalance. Who is leading the way forward?

World 50, G100, Procurement Leaders and EHIR exist to help executives discover better ideas, share valuable experiences and build relationships that make a lasting impact. To help members address the questions above, we offer The Scarcity Economy.

This project—which stems from a survey of 239 group members conducted in December, along with 23 in-depth member interviews—consists of this website, a PDF, a podcast series and downloadable slides segmented by industry and size, along with raw data. Certain elements of this project are available exclusively to members of the World 50, G100, Procurement Leaders and EHIR communities.

<b>239</b>	<b>\$5T</b>	<b>10.5M+</b>	<b>20</b>
Executives	Total Revenue	Total Employees	Countries



# Executive summary

## 1 Scarcity is real.

A full 98% of respondents are experiencing shortages of some kind, with 78% of them reporting either a **major** or a **moderate** impact on their business. And these shortages are not going away soon: Only 2% of those responding thought that shortages would come to an end before mid-2022. The other 98% were evenly split between believing it would last for six months to a year and one to three years.

## 2 Skilled labor is at the core.

The survey asked respondents what kind of shortages they were experiencing, ranging from raw materials to management talent to truck drivers. The only factor that **every industry** reported experiencing scarcity in was **skilled labor**, with **76% of all respondents saying it was having a moderate or a major impact on operations**.

## 3 People are leaving.

The “Great Resignation” is having real impact. **Some 71% of respondents** said that **increased turnover has affected their business**—indicating that it may be the biggest legacy of the crisis.

## 4 Inflation is hitting hard.

A full **90% of respondents** said they are increasing compensation either **“a little” or “a lot”**—with **78% saying the same about pricing**. At the time of writing, inflation is at 7% in the U.S., its highest level since 1982, according to data from the U.S. Bureau of Labor Statistics. Meanwhile, across the eurozone, inflation stands at 5%, according to Eurostat.

## 5 Automation is one result.

The increased pressure to raise prices and boost wages is leading many companies to accelerate automation, something that is politically challenging but economically necessary—according to many leaders—as wages continue to soar. **Overall, 86% of respondents indicated they are investing in automation** in response to the crisis, **with 41% investing “a lot”**.

## 6 The customer impact has yet to be grasped.

Apart from increased employee turnover, four of the top five business impacts relate directly to customers. **These impacts include longer lead times (70%), and shortages of goods and services (64%)**. However, just 28% of respondents reported that shortages have damaged customer relationships so far, suggesting that not all of the fallout has been realized.

## 7 The bigger have it better.

The survey data indicates that shortages have a larger impact on relatively smaller companies. Nearly one-third of leaders at organizations with revenues of less than US\$10 billion reported facing major impacts, on average, compared with just 16% of those at organizations with revenues in excess of US\$50 billion.

## 8 Supply chains have moved from just-in-time to just-in-case.

The pandemic accelerated the shift in supply chain priorities from extreme cost efficiency and lean operations to duplication and stockpiling. Overall, 74% of respondents indicated they are increasing inventory levels in response to supply shortages, with 30% placing “a lot” of emphasis on this strategy.

## 9 Supplier relationships are top of mind.

The ongoing supply crunch has forced many companies to rethink the entire way they do business—starting with an admission that they may have focused too heavily on the customer at the expense of the two other key relationships: with employees and suppliers.

## 10 Sustainability has become an unanticipated choke point.

Many materials are less available, due to both climate change and increased regulations. That fact, coupled with changing customer preferences for more sustainable materials, means companies are struggling to meet demand.

# The big picture ↘

February 2022. Stuck cargo ships, ever-changing viral mutations and vanishing employees turned the holiday season from a longed-for reset into a source of further stress. The “Great Resignation” has become common parlance. The difficulty in obtaining both products and people shows no signs of easing, just as demand surges. “All categories are constrained across industry,” said Melani Wilson Smith, chief procurement officer at PepsiCo. “I have not seen the combination of factors that we have today. At the same time, we are experiencing labor shortages and inflation in several markets. The pressure this puts on the total system will have long-term implications.”

Are businesses prepared for the scarcity economy? Who is leading the way forward? Is this a fundamental change—or a temporary imbalance? To answer these questions, World 50, G100 and Procurement Leaders surveyed members in December 2021, receiving responses from 239 senior-level executives representing companies with total revenues of US\$5 trillion, and supplemented these results with in-depth interviews from another 23 executives. CHROs, supply chain and procurement heads, CEOs, directors and many more participated. They said the business environment based on the assumption of abundance—the notion that anything can be had for the right price—is giving way to something different: an environment in which scarcity is the expectation.

Yet beyond the straight numbers is something much more fundamental: a realization that while the current imbalance between the supply of goods and people and the demand for them may eventually ease, there has been a fundamental shift in the economy. This shift is from low price to higher price, from hyper-lean to redundancy and to a realization that a single company is just part of a web of interconnected relationships and not a straight pipeline to the customer. It’s a fundamental change, said many respondents—and one that requires a lot more than short-term thinking. This report synthesizes members’ perspectives on the current situation, the labor struggle and the strategies they are putting in place to cope and compete. We hope you find it useful.

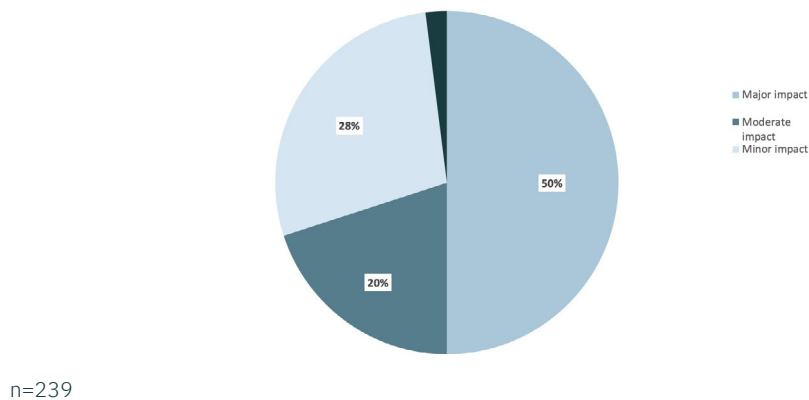


→ Scarcity is real.

A full 98% of respondents were currently experiencing shortages of some kind at the time of the survey, with 78% of them reporting either a major or a moderate impact on their business. “There’s no link in our chain that isn’t either missing, distorted or broken,” said one CEO of a major consumer retailer. It’s not just goods. Respondents reported scarcities of everything from energy, stemming from new environmental concerns; to mental health, due to employee burnout; to land, for those trying to build warehouses so that they can increase inventories of scarce products.

## 98% of companies are impacted

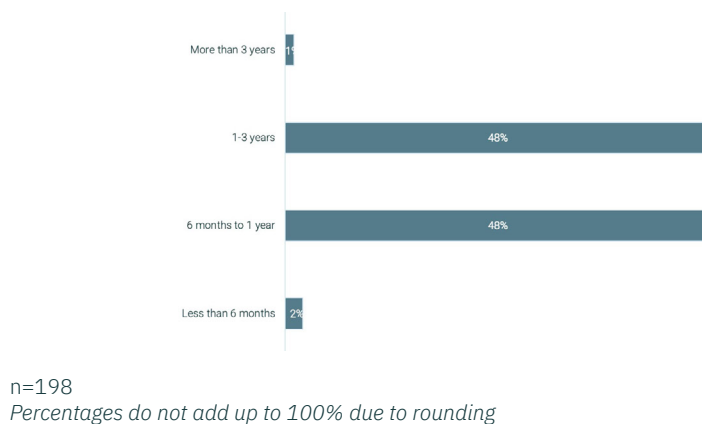
Figure 1: The extent to which shortages of any kind are currently impacting organizations.



And these shortages aren’t likely to end soon. Only 2% of those responding thought that shortages would come to an end before mid-2022. The majority (96%) were evenly split between believing it would last six months to a year and one to three years. Partly, this is because of supply shortages, but it’s also because of demand, said Raj Subramaniam, president and COO of FedEx. According to Subramaniam, at the beginning of the pandemic, “there was an assumption that the demand for manufacturing was going to go down, and it did. However, what no one saw coming was that it picked up right after that. Now there is a dichotomy between demand and supply, leading to the scarcity of things.”

## Shortages not ending soon

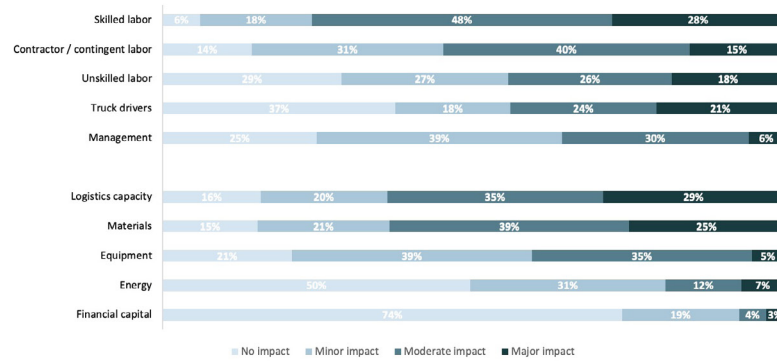
Figure 2: Respondents’ expectations as to how long shortages will last.



Where are shortages most acute? The survey identified scarcity across the entire economic cycle, but it indicated that shortages are most common in skilled labor, manufacturing and logistics capability. Indeed, every industry—from consumer goods to finance—reported at least moderate shortages of skilled labor, with 76% of respondents saying it was having a moderate or a major impact on operations.

## People: the biggest concern

Figure 3: The degree to which shortages have impacted respondents by production factor.



n=218

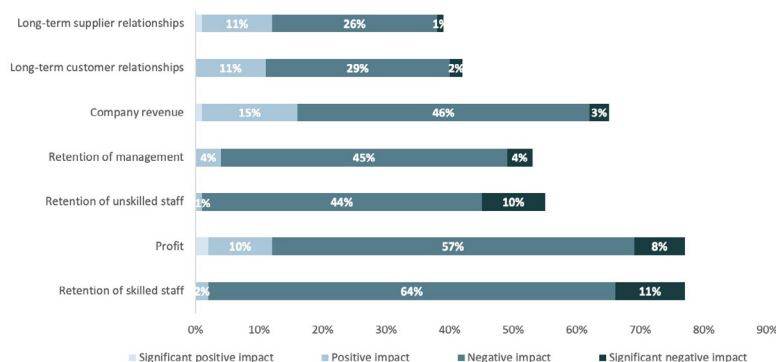
# People: ground zero

→ *Skilled labor is the scarcest input across all industries.*

For all the worry about raw materials, chips, toys and COVID-19 test kits, the survey suggested that the most universal problem—and the one that’s least likely to ease anytime soon—is the shortage of people. Some 71% of respondents reported that increased turnover has affected their business—indicating it has been the greatest business impact of the crisis. The reasons for this are numerous, ranging from the pandemic-driven Great Resignation to declines in international migration due to government-imposed border closures, as well as demographic factors including aging populations and slowing birth rates. There is a fundamental shift going on, said Greg Creed, former CEO of Yum! Brands and a director on the boards of Whirlpool, Aramark and Sow Good. “Even with these new numbers, we are not attracting labor back into the workforce, which is not what economics taught us. I think people are even questioning, ‘Do I want to do that sort of work?’”

## Biggest issue: retention

Figure 4: The extent to which respondents indicate shortages will positively or negatively impact their businesses in 2022.



n=198

“No impact” excluded from the analysis

“All the people who make the things flow—the dockers in the ports, the drivers at warehouses, the cooks, the people in the restaurants—we never really appreciated the critical importance of their roles.”

—Sophie Bechu, chief operations officer, Royal Philips



Companies in all industries are feeling the crunch. Said Chuck Sample, VP of analytics and data science at US Foods: “The supply chain issue in the food industry isn’t about the availability of product as much as it is the availability of getting product from place to place, which is a labor issue.” Members seem to be aligned on the belief that the growing power of employees has not been fully understood or appreciated. Sophie Bechu, chief operations officer at Royal Philips, said, “All the people who make the things flow—the dockers in the ports, the drivers at warehouses, the cooks, the people in the restaurants—we never really appreciated the critical importance of their roles.” Now the leverage has shifted.

Mike Harris, SVP of sales and operations at truck supplier FleetPride, said that in a normal day, truck drivers picking up cargo at the distribution center near the U.S. Port of Los Angeles will pass at least four or five signs offering US\$3,000 signing bonuses to entice them to leave their current employers. “Turnover is higher than we’ve ever seen it,” he said. One thing FleetPride has done to compete is make benefits such as 401(k) investment available on day one.

Adding to the crunch is the fact that because of port congestion, those same drivers currently spend multiple hours a day sitting in their trucks and losing their available hours—hours they are authorized to drive, for safety reasons. Then, when they finally leave, there are backups at the rest stops, further slowing the delivery of items.

## Deep Dive



MERCK

### Employee Growth Comes First

Pharmaceutical company Merck is an example of an organization that so far has escaped the most extreme manifestations of the Great Resignation, said Carl Segerstrom, the company’s head of talent management. He noted that turnover is higher than usual, but it has remained steady recently. Segerstrom attributed this to the fact that the company has long been known for its purpose—which is to save lives—and a very powerful culture, two things that many other organizations are just now beginning to put into place. “We’re vigilant and do everything to be competitive. But my workforce is not walking out en masse. Across the board, we have the view that everyone has to grow. Our company purpose helps us; what we do saves and improves lives.” He continued, “With all that said, retention is high on our list of watchouts. We aren’t complacent and pay close attention to signals we’re getting, specifically watching to see if any specific vulnerabilities are popping up—for example, with [women], given the impact the global pandemic has had on working mothers.”

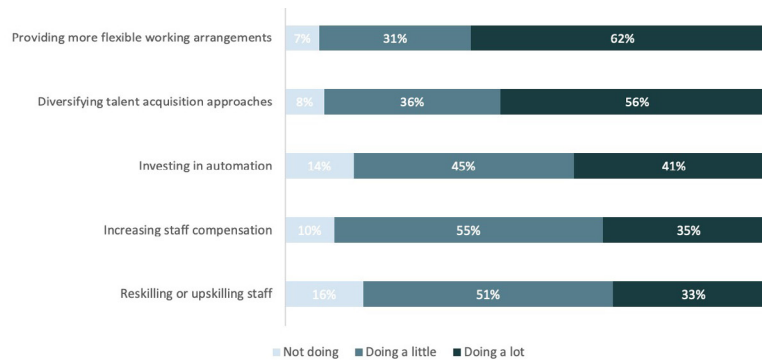
Yet even when the company experienced bad news, such as when Merck’s COVID-19 vaccine proved relatively ineffective, people did not give up. And although salary and wage pressure remains an issue, Segerstrom views it much more holistically. “Compensation is never the issue until it becomes the issue,” he said, meaning that with existing employees, there are usually other factors at play as well. “The boundaries between compensation and benefits and talent acquisition are blurring. We are looking at the whole value chain of talent.” One technique he has used successfully is the “stay interview,” which is a personalized form of an engagement survey meant to identify problems before they cause people to leave. Merck increased these interviews during the pandemic, along with a campaign called “R U OK?” to evaluate mental health. “I think mental health went from being stigmatized to being something that we need to talk about,” he said.

## → How companies are addressing the talent shortage

Although some of these causes are structural, businesses appear to have prioritized short-term resolutions so far. When asked what they are doing to manage shortages, most respondents said they are providing more flexible working arrangements and diversifying talent acquisition strategies, with 62% and 56% of respondents placing “a lot” of emphasis on these measures (see Figure 5, below). Fewer are going all in on reskilling employees or increasing staff compensation—both of which are costlier and more difficult processes.

### Flexible working arrangements lead the way

Figure 5: The degree to which respondents are taking selected measures to manage shortages.



n=194

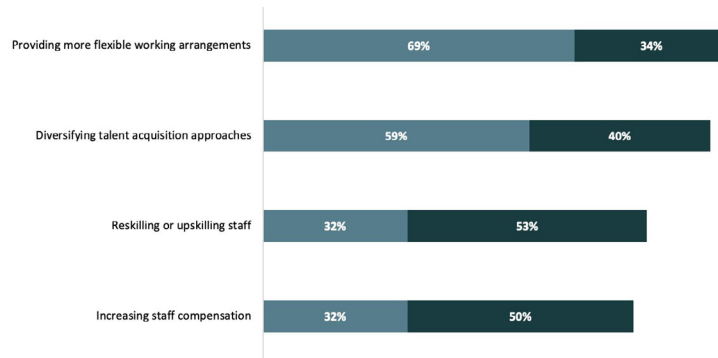
## → Wage inflation is encouraging automation.

The increased pressure to raise prices and boost wages is leading many companies to accelerate automation, something that is politically challenging but economically necessary as wages continue to soar. “If we start paying people more than the market will bear, something will change,” said Kevin Smith, president and CEO of Sustainable Supply Chain Consulting, who believes that with rapidly escalating wages, companies may be able to capture an acceptably rapid return on investment for a new, fully automated distribution center. “The investments in robots and automation may not cost more over time.” It’s already happening: Overall, 86% of respondents indicated they are investing in automation in response to the crisis, with 41% investing significantly. This activity is highly concentrated among consumer goods and manufacturing companies, with 97% and 90% of respondents in those industries, respectively, reporting that they are investing in automation, both to do relatively low-skill jobs and to improve inventory, storage and delivery management.

Our analysis of the survey data shows a very interesting segmentation: Respondents’ actions vary depending on how long they anticipate shortages to last. For example, the proportion of respondents who indicated they are increasing the use of flexible working “a lot” falls from 69% among those who anticipate shortages lasting from six months to one year, to 34% among those who believe the crisis will last up to three years. By contrast, the equivalent figure for those who indicate they are increasing staff compensation grows from 32% to 50% when comparing the same two groups (see Figure 6, below). If those who believe the talent crisis is a fundamental shift are right, it is likely that many companies are not taking the difficult but necessary actions needed now.

## Short-term expectations = Short-term actions

Figure 6: The proportion of respondents who indicated they are placing “a lot” of emphasis on selected actions to manage shortages, by how long they expect shortages to last.



n=198

Numbers do not sum to 100 because they combine two datasets

“No impact” excluded from the analysis

“An analogy is that we are probably in our fifth or sixth marathon and have only stopped to have a glass of water. How much harder can we grind?”  
–Chad Werkema, VP of supply chain and procurement,  
Motorola Solutions

One thing that seems certain from the survey is that rising compensation is here to stay. At the time of writing, inflation is at 7% in the U.S., its highest level since 1982, according to data from the U.S. Bureau of Labor Statistics. In the U.K., Bank of England data puts the figure at 5%. Similarly, across the eurozone, inflation stands at 5%, according to Eurostat. A persistent shortage of skilled workers will give companies little choice but to raise pay—not only to attract new staff but to retain existing employees. Yet constant pay hikes are not sustainable for many companies, particularly those in low-margin businesses that can’t easily pass price increases on to customers.

Providing more flexible working arrangements is one way to boost engagement, but it is quickly becoming table stakes nearly two years after the beginning of the pandemic. It also won’t ease the pressure on those in essential industries such as health care, logistics, supply chain and others. Many teams are close to their breaking points. Said Chad Werkema, VP of supply chain and procurement at Motorola Solutions: “An analogy is that we are probably in our fifth or sixth marathon and have only stopped to have a glass of water. How much harder can we grind?”

What all of this means is that companies must get creative; business leaders must think of ways to build stronger cultures, reward valued employees in ways that go beyond cash and prepare for lower profits while doing so. “I call it the ‘Great Reassessment,’” said Mark Weinberger, former chairman and CEO of EY and director on the boards of Johnson & Johnson, MetLife and Saudi Aramco. “People aren’t resigning and stopping working altogether. They are mostly reassessing what they want to do for work and how it fits into their lives.” Although some of this is temporary, he said, not taking a long-term approach to talent is a recipe for failure—no matter what industry you are in. “If business leaders don’t understand and recognize that how employees want to work and engage is changing, they will be missing out on attracting and retaining top talent. There is a constant need to help your employees upskill.”

EY was an early leader here, investing huge sums in training and innovating. One such program, badging, gives employees credentials that they can also use at other companies when they leave—which Weinberger thinks is just fine if employees leave with positive feelings about the company. “You will have to invest more in your employees’ ability to grow and increasingly let them know that you care about their development and well-being,” he said. Livia Freudl, SVP and head of human resources at Varian, agreed: “We are much more career coaches than recruiters.”



## Deep Dive ↘



C&S Wholesale Grocers is an industry leader in supply chain solutions and wholesale grocery, employing more than 16,000 employees, many of whom are blue-collar workers unused to being invested in. Since the pandemic began, C&S has doubled down on employee engagement. “It cannot be just about the money,” said Miriam Ort, EVP and chief human resource officer at C&S, although pay must meet the market. “Once that’s competitive, employees will make choices on other things,” she said, noting that schedule flexibility is probably the most important factor for many front-line employees. Yet it’s not a one-size-fits-all situation. “We have done a lot of work to really understand what employees want

on schedules, and it looks really different” for different groups, she said. Ort and her team have also put extra emphasis on onboarding, believing that gathering quantitative data from new hires gives managers a better awareness of what tools their workers need to succeed. In addition, managers will buy a new group of trainees lunch, where they engage in person, solicit feedback and talk openly about what is needed to succeed. The company has also invested heavily in other areas designed to enhance the employee experience, including additional trainers, digital connectivity and recognition programs for achievements such as graduating from training or working late.

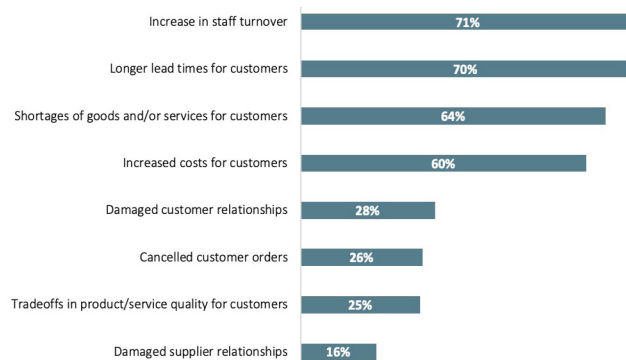
# The customer impact is massive ↴

→ Scarcity is leading to higher prices and fewer choices for consumers, particularly in consumer goods and manufacturing.

The proliferation of global supply chains over the past 40 years has shaped the evolution of organizations into highly tuned, lean entities with little flexibility to absorb operational shocks. This works in an environment of abundance, when there are always other options and extra capacity to be borrowed. In an environment of scarcity, however, something must give—and it may be the customer experience. Apart from increased employee turnover, four of the top five business impacts relate directly to customers. These impacts include longer lead times (70%), as well as shortages of goods and services (64%) (see Figure 7, below).

## Customers are feeling the pain

Figure 7: Business impacts of shortages.



n=194

There is a disconnect here, and it's a big one: Although the impacts on customers appear to be significant, just 28% of respondents reported that shortages have damaged customer relationships so far. This may be because it is just beginning to affect the customer, meaning that companies have yet to gauge the full effect of the crisis. Said Mike Harris, SVP of sales and operations at truck supplier FleetPride: "What hasn't become mainstream is how will the end consumer be impacted. Companies will be forced to deal with this on the bottom line." The bleeding edge appears to be the consumer goods industry, where 47% of respondents reported they have incurred damage to customer relationships—more than any other industry.

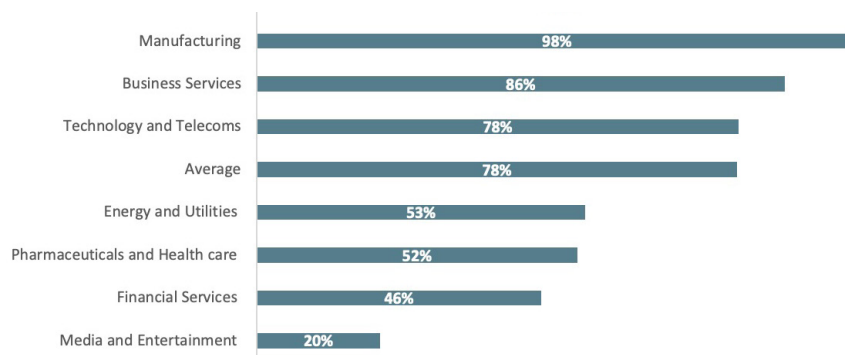


➔ *Inflation is finding its way to the customer.*

Overall, one of the most common responses to the crisis has been to increase pricing, with 78% of respondents indicating they are doing this “a lot” (41%) or “a little” (37%). Among respondents in the consumer goods industry, however, the figure increases to 100% (see Figure 8, below), suggesting a link between prices and damaged customer relationships. At one company, the cost of a 40-foot container went from US\$1,900 pre-pandemic to US\$30,000 for Christmas 2021 shipments. What’s obvious is that the customer will bear much of that cost. Said Greg Creed, former CEO of Yum! Brands: “People are not passing on the full increase, but they’re passing on the commodity increase. At the same time, there’s less promotional activity going on. And so [the consumer] is getting a double whammy—paying for an increase to cover the cost of commodities, but because you don’t have enough supply, you don’t promote them, because why promote something you don’t have? So, that discount has gone away.”

## Prices are on the rise

Figure 8: The proportion of respondents who indicated they are increasing pricing to manage shortages, by industry.



n=194

\*The average includes data for the travel and logistics, public services and not-for-profit, and primary and extractive industries, for which there is insufficient data to report individually

The impact is greater for companies whose products are sold often, like food or gasoline, Creed added. “If you went to Taco Bell, maybe you used to pay US\$6, and now maybe it’s US\$8. The winners here are the cars and the appliances—the people that have long purchase times,” he said, because it’s harder to remember what you paid, for example, seven years ago for a washer. Companies that do not have this luxury will have to take profit hits.

→ *There are likely to be fewer choices.*

It's not just increased prices: Scarcity also suggests that customers will likely have fewer choices because of the crisis. On average, 66% of respondents indicated they are rationalizing product portfolios either “a lot” (20%) or “a little” (46%) in response to shortages. This trend is particularly pronounced in consumer goods and manufacturing, where 90% and 80% of respondents, respectively, indicated they have resorted to this strategy alongside price increases. Even if they don't, it takes time and money to respond to new demand patterns.

Mark Westfall, chief procurement officer and head of supply chain services at The Coca-Cola Company, explained that when people began eating more meals at home during the pandemic, the demand for 12-ounce cans exploded. “People opted for that package because of affordability ... and the ability to buy in multipacks,” he said. That, in turn, led to major structural changes in the types of packaging needed as well as shortages of some products and surpluses of others. All of this suggests that one lasting impact of the scarcity economy may be an end customer whose expectations will need to be recalibrated. This may feel confusing and even terrifying for businesses, who have lived by the maxim that “the customer is always right” for generations. It will certainly impact marketing and sales, which have assumed abundance for decades.

“What hasn't become mainstream is how is the end consumer going to be impacted. Companies will be forced to deal with this on the bottom line.”

*–Mike Harris, SVP of sales and operations,  
FleetPride*

# Scale matters ↘

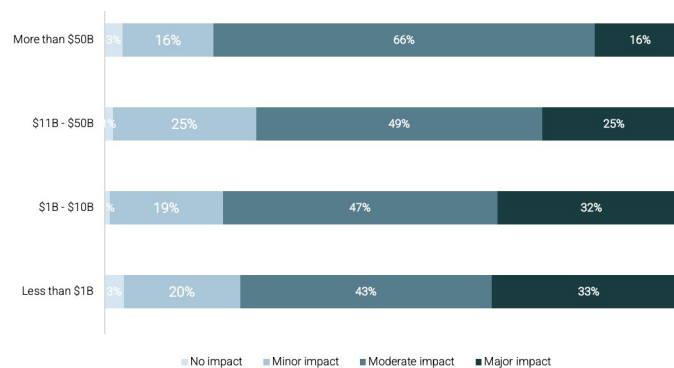
➔ *Bigger companies have the edge. They are using their scale to hoard materials, attract top talent and secure logistics capacity.*

Small- and medium-sized enterprises are known for being adaptable to change, particularly in a crisis. Yet the research suggests that the biggest businesses have benefited most from the scarcity economy because they have been able to use their scale and financial flexibility to boost inventories, negotiate with suppliers and raise compensation.

Although 98% of respondents indicated their organizations have felt impacts from shortages of any kind, the crisis has been more severe for relatively smaller businesses. The survey results suggest that as the size of a company—i.e., its revenue—decreases, the impact created by shortages increases correspondingly. Nearly one-third of leaders at organizations with revenues of less than US\$10 billion reported facing major impacts, on average, compared with just 16% of those at organizations with revenues in excess of US\$50 billion (see Figure 9, below).

## Bigger companies benefit

Figure 9: The degree to which respondents have been impacted by shortages of any kind, by organization size.



All amounts in U.S. Dollars.

A closer look at just where organizations are experiencing scarcity helps explain the situation. Overall, the inputs in shortest supply are skilled labor, with 28% of respondents reporting “major” impacts; logistics capacity (29% of respondents); and materials (25%). Yet among those organizations with revenues in excess of US\$50 billion, the proportion experiencing major impacts from skilled labor shortages decreases to 20%, logistics capacity to 19% and materials to 8%. Not only are the biggest companies better able to deal with the most significant shortages, but they also appear to have a greater number of levers at their disposal. Respondents from organizations with revenues of less than US\$1 billion reported taking seven actions to manage shortages, on average; those from organizations with revenues above US\$50 billion are taking nine. In addition, the smaller companies are emphasizing price increases—with probable negative impacts on customers—while bigger companies have been able to enact measures that will pay off in the long term, such as increasing staff compensation and investing in reskilling and automation (see Figure 10 below).



Figure 10: Selected actions taken to manage shortages, by revenue size.

	Increasing staff compensation	Reskilling or upskilling staff	Investing in automation	Increasing pricing	Vertical integration
Greater than \$50B	95%	95%	95%	72%	47%
\$11B - \$50B	89%	91%	95%	71%	66%
\$1B - \$10B	90%	82%	81%	80%	44%
Less than \$1B	84%	64%	76%	87%	29%
Overall average	90%	83%	87%	78%	47%

All amounts in U.S. Dollars.

Mid- to large-sized companies are also relying more on vertical integration, with 66% of leaders from organizations with revenues between US\$11 billion and US\$50 billion using it, compared to 47% on average.

“If you can put product on the shelf when your competitors can’t, you’ve got a growth opportunity. How you manage those relationships is going to be the difference between winning and losing.”

—*Len DeCandia, chief procurement officer,  
Johnson & Johnson*

# Shorter supply, deeper relationships

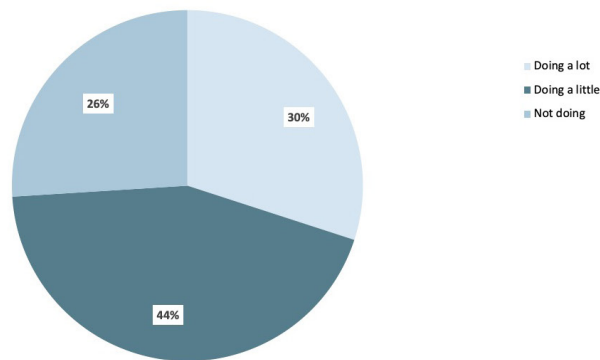
 *Supply chains are moving from just-in-time to just-in-case.*

The shift from just-in-time to just-in-case supply chains has been underway since the onset of the COVID-19 pandemic. The trend actually began before 2020, due to growing geopolitical tensions and rising nationalism in the U.S., the U.K., China and elsewhere. The pandemic only accelerated this shift in supply chain priorities—from extreme cost efficiency and lean operations to resilience.

Overall, 74% of respondents indicated they are increasing inventory levels in response to supply shortages, with 30% placing “a lot” of emphasis on this strategy (see Figure 11, below).

## Inventories Are Increasing

Figure 11: The degree to which respondents indicated they are increasing inventory levels to manage shortages.



n=194



## The Power Of Analytics During Volatility

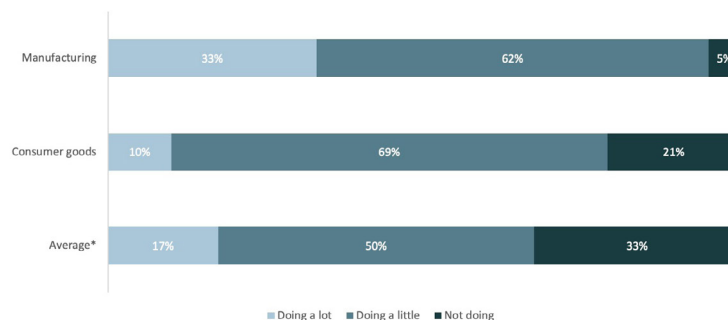
Unilever arrived early to the realization that a dedicated team bringing data analytics and insights to supplier relationships would be a competitive differentiator in the coming years. Just before the pandemic, at the end of 2019, the procurement group, led by Dave Ingram, began a reorganization. He said, “The initial thought was to create more internal strategy with a stronger analytics group, purely looking at external and internal data to support our ecosystem of buyers. That was accelerated and expanded dramatically at the end of January 2020, as we needed a dedicated focus on resilience to support

the business. The team was also tasked with developing digital tools to aid buyers in making faster, better informed decisions.” Today, the procurement group has 35 dedicated staffers with analytics backgrounds. “In procurement, we highly value negotiation and strategy development, but valuing data analytics is going to be an increasing part of moving forward. Relying solely on demand planning won’t drive efficiency,” he said. “We have to be much more agile and understand what agility means.”

Further emphasizing the pressures faced by the consumer goods and manufacturing business models, 79% of respondents in the former and 95% in the latter indicated they are localizing supply compared with an average of 67% (see Figure 12, below). Since respondents are more likely to be localizing supply chains “a little” rather than “a lot,” it’s more about redundancy than replacement in order to reduce the risks of dependency on one channel or location. Said Ron Sugar, a director on the boards of Apple, Uber, Chevron and Amgen: “The big lesson for all of us in the last few years is that you have to find a balance between pure efficiency and resilience, but that comes with cost.” There is the risk of overreaction as well; some executives are concerned about companies spending major sums on building out capacity, only to see warehouses sit empty as higher prices negatively impact demand.

### Supply chain localization is underway

Figure 12: The degree to which respondents indicated they are localizing supply chains to manage shortages, manufacturing and consumer goods.



Average n=194, Consumer goods n=30, Manufacturing n=40

→ *Businesses are reprioritizing supplier relationships.*

The ongoing supply crunch has forced many companies to rethink the entire way they do business—starting with an admission that they may have focused too heavily on the customer at the expense of the two other key relationships: with employees and suppliers. Said Kevin Smith, president and CEO at Sustainable Supply Chain Consulting: “One mistake that we’ve made in the last two decades is that buyers have gotten very mean and angry with suppliers and pushed them to the limit.” Chip manufacturers, for example, have gained more leverage in the crunch and now have the luxury of choosing with whom they would like to work—and it’s not likely to be the companies that squeezed them the hardest.

Smart organizations are working hard to rectify the imbalance, said Len DeCandia, chief procurement officer at Johnson & Johnson. “You have to be in a space where you have a mutual benefit,” he said. “In most companies, a small percentage of your suppliers represent a significant percentage of your spend and your risk. They also represent opportunity, right? Because if you can put product on the shelf when your competitors can’t, you’ve got a growth opportunity. How you manage those relationships is going to be the difference between winning and losing.” This topic has become a CEO-level focus. At Motorola Solutions, Chad Werkema, VP of supply chain and procurement, said that the chairman and CEO are regularly involved in supplier calls. “That never happened before,” he said. And in the boardroom, the supply chain used to present as infrequently as once every two years. “Now it’s every board meeting.”

## Deep Dive

### CORNING

#### Anticipating Disruption

In 2017, Corning took a long look at its supply chain and saw one thing: vulnerability. The company invested heavily in a state-of-the-art risk management system that incorporated 52 external risk factors, applied internal impact scores, prioritized emerging disruptions and employed a global collaborative platform for rapid resolution. Then the pandemic hit. The system started triggering alerts at the end of 2019, and by the first week of January 2020, Corning could see the emerging crisis. “It was the ultimate test,” said Cheryl Capps, SVP and chief supply chain officer at Corning. “Disruptions started to occur in every plant, supplier and customer—across all geographies—almost simultaneously.” Within hours of each emerging event, the company was reaching out to impacted suppliers to help them apply for essential business status, secure PPE, manage logistics and more to insure that they would be able to

serve Corning’s needs. This, in turn, allowed Corning to keep its plants running and customers served. Today, the company’s focus has shifted to reducing the frequency and severity of risks—not just anticipating and reacting to them—with its “disruption shaping strategy,” because Capps sees supply chain volatility as the new normal. To achieve this, Corning is reducing the surface area of the supply chain—employing regionalization strategies, collapsing layers in the supply chain, vertically integrating and developing postponement solutions. It is also building additional resilience by predicting and addressing risks two or three levels deep in the supply chain. “We have times when we call our suppliers about a disruption, and they deny that they are being impacted. We tell them to look again because the situation is about to change,” said Capps.

The other big shift for supply chain is the need to understand the entire system, from the raw materials used by the suppliers' suppliers all the way to the customer. That means increased investments in analytics. Chuck Sample, VP of analytics and data science at US Foods, said he is sharing data with vendors and customers for the first time. "Partnering with other companies, we can solve problems together. Data is the new oil; it's an economy of collaboration."

➔ *Sustainability is yet another cause of the crunch.*

Although most people assume that COVID-19-related disruptions are the main cause of scarcity, the environment is another long-term factor. Many materials are less available, due to both climate change and increased regulations. In combination with changing customer preferences for more sustainable materials, companies are struggling to meet demand. Cécile Tricault, SVP and regional head for Southern Europe at logistics real estate company Prologis, said a scarcity of energy led the company to accelerate deploying alternative solutions such as solar panels as part of their warehouses. At Unilever, Dave Ingram, chief procurement officer, said that operations are already being affected negatively by accelerating climate change, naming soy crop yields as one example. "It's already influencing availability and cost," he said, "and I think that change is coming quicker than anyone really expects." Companies must also look deeply at their entire supply chains to make sure they have offerings for consumers choosing more sustainable materials.

**The Scarcity Economy is clearly having a massive impact on the way business is done. We hope that you have found this research useful—and that some of the perspectives expressed by fellow members are helpful as you address these challenges. Please share your feedback with us or ask further questions by contacting [info@thescarcityeconomy.com](mailto:info@thescarcityeconomy.com).**

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