Shared Service Centers: Risks & Rewards in the Time of Coronavirus

Our recent research reveals that organizations are reassessing the pros and cons of captive services. The advantages – technology and process standardization, economies of scale and lower-cost labor – are pitted against mounting geopolitical, business continuity and innovation concerns.

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Cognizant

In our global study, companies across industries are twice as likely to reduce than increase their use of captives.

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Balancing the Pros & Cons of Captive Services

As the pandemic continues to disrupt all aspects of life, companies are re-evaluating how they get work done. For many large enterprises, reassessing their use of, and future investment plans for, shared service centers is a key part of this strategic planning.

In a recent position paper, we examined the past, present and future of shared service centers, also known as “captive” centers, illuminating the business and technology trends that led to their establishment and prevalence. In this complementary research report, conducted with ESI ThoughtLab, we present views from C-suite leaders representing 1,500 organizations worldwide regarding the next moves they intend to make (see methodology, page 27).

A clear message stands out from our extensive research: that the business logic behind captives – standardization, economies of scale, lower cost labor – is still compelling. But the associated risks – geopolitical and business continuity concerns and the risk of diminished innovation – are increasingly pressing issues. Consequently, just as many organizations want to sell their captives as remain committed to using them.

Captives have historically been thought to offer many of the benefits of outsourcing while mitigating some of the risks of working with external service providers. In the time of coronavirus, the nature of this trade-off needs to be recalculated. Globalization, though currently out of favor, will continue to be a motivating force for large enterprises everywhere. But the tactics used to operate globally are set to profoundly change.

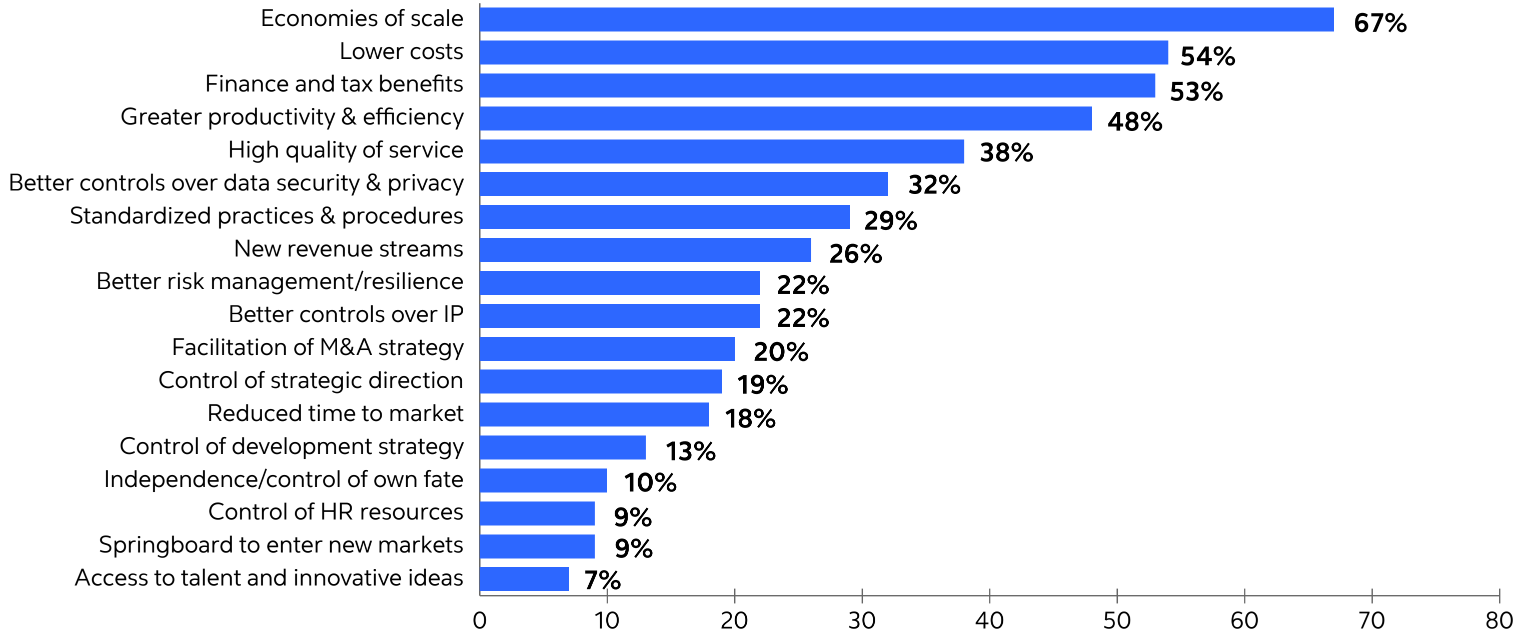
15 Key Findings

The main benefits of captives include economies of scale, lower costs and financial and tax advantages, all of which were cited by more than half of respondents.

Regardless of industry or company size, the key value drivers of shared service centers are economies of scale, lower costs and financial and tax benefits (see Figure 1). Greater productivity and high quality of service are also common benefits, mentioned by more than one-third of executives. More nuanced upsides, cited by less than one-third of businesses, include standardized procedures, new revenue streams, better risk management and better control of intellectual property.

The rewards of using captives

Percent of respondents naming each benefit.



Response base: 1,500

Multiple responses permitted

Source: Cognizant Center for the Future of Work

Figure 1

The benefits can vary by industry (see Figure 2). While the top three benefits are fairly consistent across the board, financial services execs more often point to new revenue streams and better risk management, while those in life sciences realize bigger gains from standardized processes. Retailers see more benefits from better control of intellectual property and higher data security, and manufacturers gain greater value from reduced time to market.

Benefits vary by industry

Percent of respondents naming each as a top benefit.

Rank	Education	Financial	Healthcare	Life sciences	Manufacturing	Retail
1	Economies of scale **61%**	Economies of scale **68%**	Economies of scale **70%**	Economies of scale **68%**	Economies of scale **64%**	Economies of scale **68%**
2	Lower costs **57%**	Finance & tax **56%**	Finance & tax **58%**	Lower costs **51%**	Lower costs **60%**	Finance & tax **56%**
3	Productivity/efficiency **44%**	Lower costs/productivity **52%**	Lower costs **53%**	Finance & tax **50%**	Finance & tax **58%**	Lower costs **54%**

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 2

2 For most companies, high capital investment and inability to innovate are major drawbacks.

Many of the biggest drawbacks of captives relate to costs, from large capital investment and long payback periods, to opportunity costs and high cost of service (see Figure 3). While the cost of captives is a pain point across industries, some feel the pinch more than others. For example, high capital investment is the top worry of margin-squeezed retailers, while long-term payback is the number one downside for life sciences companies (see Figure 4, next page).

The cons of using captives

Percent of respondents naming each drawback.

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 3

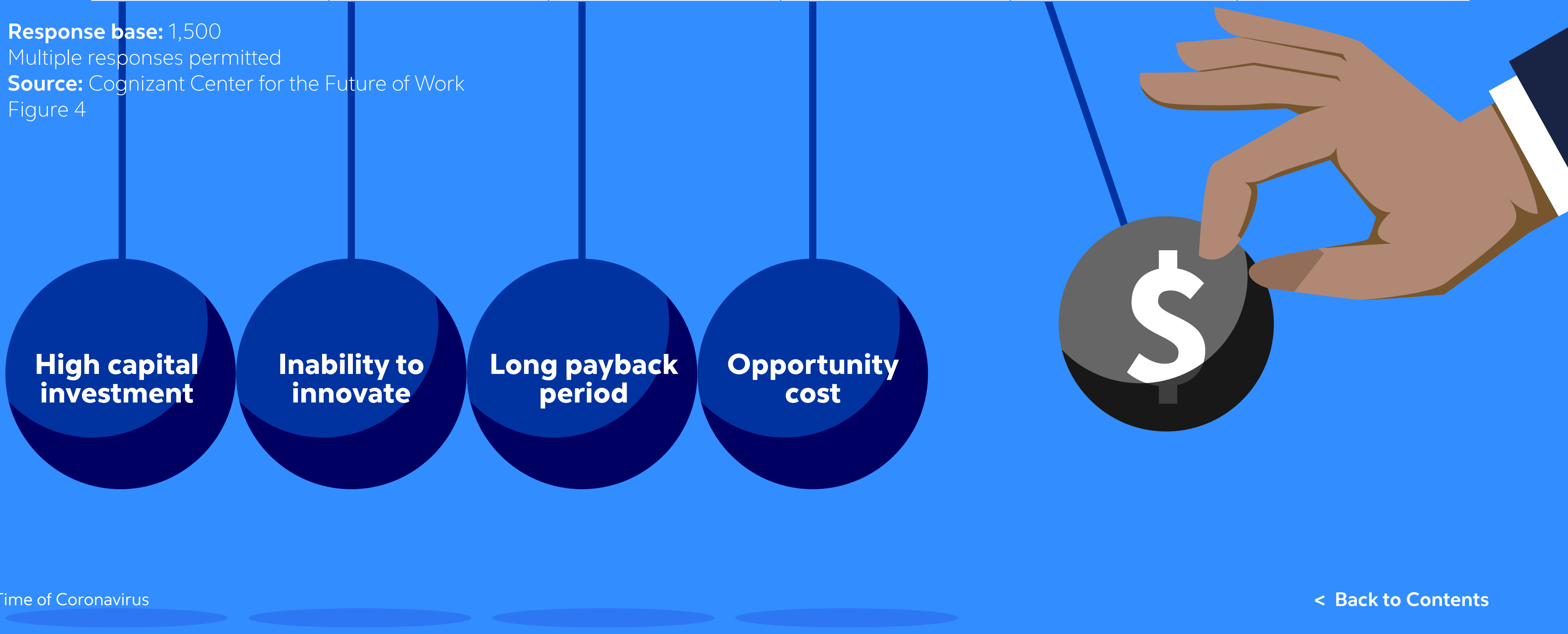
Another major negative is the inability to innovate, cited by more than half of executives. About two- thirds of IT executives (CIOs, CTOs and CDOs) and 59% of top management executives (CEOs, COOs and CFOs) see the lack of an innovation mindset as a major disadvantage of captives. Regulations and compliance are another thorny challenge for many companies, particularly those in life sciences (50%).

Drawbacks differ by industry

Percent of respondents naming each as a top drawback.

Rank	Education	Financial	Healthcare	Life sciences	Manufacturing	Retail
1	High capital investment **53%**	Inability to innovate **52%**	High capital investment **53%**	Long payback period **58%**	High capital investment **56%**	High capital investment **64%**
2	Long payback period **46%**	High capital cost **49%**	Inability to innovate **47%**	High capital investment **57%**	Inability to innovate **54%**	Inability to innovate **60%**
3	Opportunity cost **45%**	Long payback period **48%**	Long payback period **44%**	Inability to innovate **56%**	Opportunity cost **51%**	Long payback period **51%**

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 4



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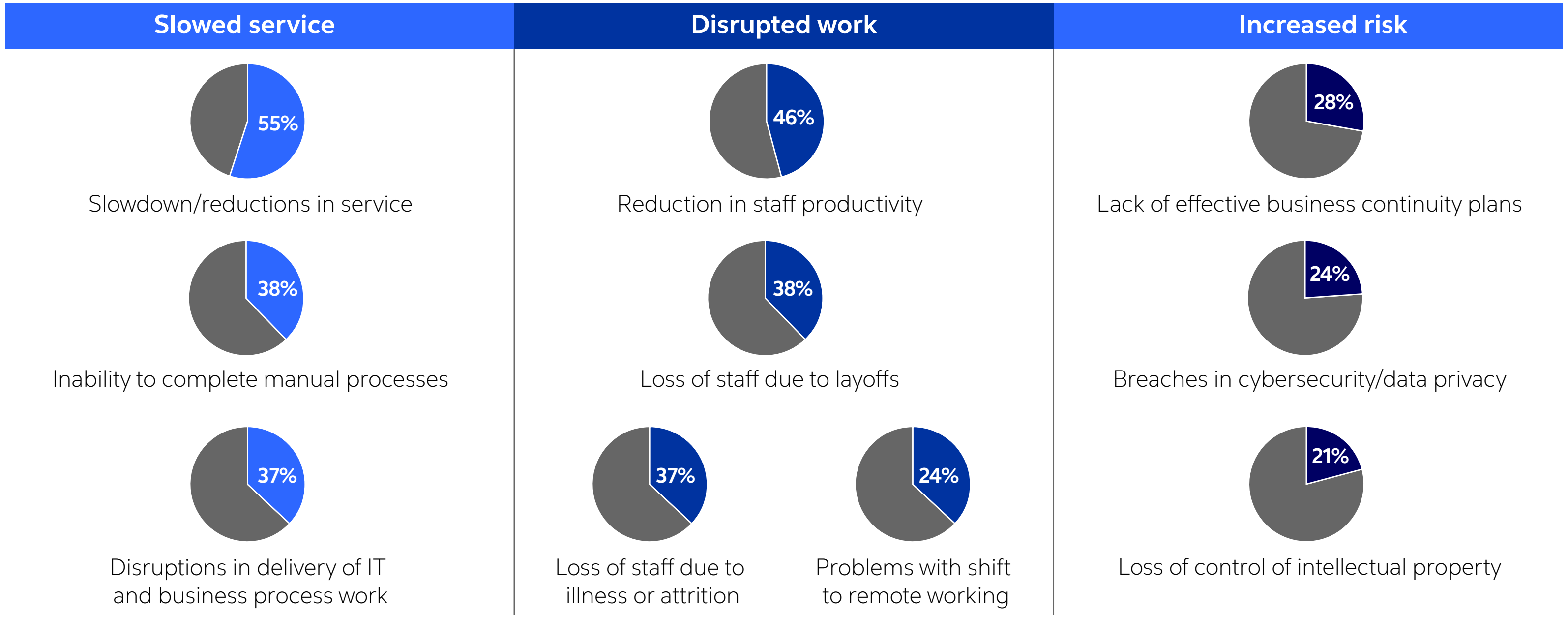
The pandemic has hurt captives in three main ways: slowed service, disrupted work and heightened risk.

COVID-19 curtailed service from captives in several ways: It slowed down service, made it difficult to complete manual processes and disrupted the delivery of IT services (see Figure 5). Working became more challenging, with productivity declining as staff moved to remote work and resources were constrained by illness and layoffs. Manufacturers and retailers were harder hit than other industries. For example, 62% of manufacturers and 58% of retailers experienced service slowdowns. They also suffered greater losses in staff productivity.

Impact of the pandemic

Percent of respondents naming each as a top impact.



Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 5

4 As companies cope with the health crisis, more than four in 10 intend to decrease their use of captives. Only two in 10 expect to use them more.

Companies across industries are twice as likely to reduce than increase their use of captives (see Figure 6). The ratio is even higher among manufacturers and retailers, again because they were particularly hard hit during the pandemic. The pattern is different, however, for the largest companies in our sample – those with more than $10 billion in revenue. Of these, only 36% plan to decrease their use of captives, and almost as many (31%) plan to increase their use. Larger, financially stronger organizations have the capital strength to weather the current economic storm, in a way that a lot of smaller organizations do not.

What the future holds for use of captives

Percent of respondents planning to increase or decrease their use of captives by 2023.

	Total	Education	Financial	Health	Life sciences	Mfg.	Retail
Increase	**19%**	14%	19%	20%	23%	19%	19%
Decrease	**44%**	40%	43%	40%	41%	**53%**	**48%**
No change	**37%**	45%	38%	40%	36%	28%	34%

Response base: 1,500

Percentages may not add to 100% due to rounding.

Source: Cognizant Center for the Future of Work

Figure 6

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5 The main reason cited for increasing reliance on captives over the next three years is to standardize processes – a benefit cited by just a minority of organization.

Although fewer businesses cited it as a benefit they're realizing today, process standardization across functional areas and geographies is the main reason cited for increasing the use of captives over the next three years (see Figure 7, next page). It's an even more important reason among manufacturers and retailers, cited by about six out of 10 respondents. Access to local tax incentives and lower labor costs remain important objectives over the next three years. But with most organizations already realizing efficiencies of scale from their use of captives, it will be less of a reason for companies to ramp up their use of these services, as such advantages increasingly do not supersede such economies of scale.

The pandemic is directly influencing how businesses generate value from captives. One-quarter will increase their use of captives to leverage increased remote working, and the percentage of organizations seeking resilience as a benefit will climb over current levels. Quality and data security, as well as better intellectual property controls, are less important motivations when compared with the share reporting them as benefits now. For businesses with over $10 billion in revenue, reducing labor costs is the main inducement for increasing use of captives.

Top reasons for increasing the use of captives don't always align with current benefits received

Percent of respondents citing each reason for increasing the use of captives by 2023 and percent realizing each benefit now.

Reasons	Currently realizing benefits	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
Standardize processes	**29%**	49%	47%	44%	37%	45%	62%	60%
Access local tax incentives	**53%**	47%	39%	38%	49%	45%	52%	57%
Reduce labor costs	**54%**	46%	36%	44%	39%	52%	44%	57%
Centralize expertise	*	34%	28%	42%	37%	40%	31%	23%
Build efficiencies of scale	**67%**	31%	31%	35%	41%	34%	25%	15%
Better resiliency/risk management	**22%**	28%	22%	40%	35%	16%	33%	26%
Leverage remote working	*	25%	28%	33%	33%	17%	19%	21%
Increase revenue/growth	**26%**	24%	25%	27%	25%	26%	23%	19%
Control quality of service	**38%**	23%	25%	38%	14%	17%	25%	23%
Improve cybersecurity	**38%**	23%	25%	33%	14%	31%	17%	17%
Deploy capital in tax attractive model	*	17%	22%	23%	14%	14%	19%	11%
Improve IP controls	**22%**	13%	14%	12%	20%	9%	10%	13%
Retain innovation capabilities	*	9%	--	8%	10%	17%	10%	2%
Retain in-house talent	*	7%	6%	6%	12%	3%	10%	2%

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 7

* These responses were not included in the "benefits" survey question.

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6 Businesses will decrease their use of captives mainly because they drain management time, fail to deliver ROI and don't meet with regulatory hurdles.

Two-thirds of companies reducing their use of captives will do so because they require too much management time (see Figure 8, next page). This is particularly true for educational and life sciences organizations – and for businesses with over $10 billion in revenues. Many organizations also point to insufficient ROI of captives and the associated high operating costs. Regulatory challenges trouble more than half of all organizations and almost 60% of life sciences businesses. Substandard quality of service is a much bigger concern for larger businesses than smaller ones. About three of 10 organizations cite lack of operational flexibility, something that no doubt became especially problematic during the pandemic.

Time and ROI are top reasons for decreasing the use of captives

Percent of respondents naming each reason for decreasing the use of captives by 2023.

Reasons	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
Requires too much management time	65%	75%	57%	66%	73%	62%	57%
Insufficient ROI and cost-benefits	56%	59%	54%	58%	54%	58%	55%
Regulatory and compliance issues	51%	44%	49%	50%	59%	50%	54%
High operating costs	40%	46%	35%	38%	39%	40%	42%
Difficulty acquiring, retaining talent	37%	35%	32%	36%	43%	39%	38%
Substandard quality of service	29%	27%	27%	27%	34%	30%	29%
Lack of operational flexibility	29%	37%	35%	31%	19%	26%	26%
High capital costs	23%	13%	24%	15%	13%	35%	31%
Inability to transfer innovation	19%	23%	23%	21%	12%	21%	16%
Captives no longer fit our strategy	11%	11%	9%	14%	10%	14%	6%

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 8

7 The vast majority of companies decreasing their use of captives will outsource more to external service providers (ESPs).

Of the businesses that plan to reduce their use of captives, the lion's share (81%) plan to outsource more to external service providers (ESPs) by 2023. This is especially true for life sciences organizations and companies with revenue over $10 billion. The main reasons relate to cost: lower cost of service of ESPs, greater profitability of processes, and reduced management time and overhead. Other important motivations are the desire to build scale, access deeper capabilities and achieve higher quality of service.

There are notable variations by industry (see Figure 9, next page). For education, healthcare and life sciences companies, securing service at a lower cost is the main impetus, while for manufacturers and retailers, it's increasing the profitability of their processes. For financial services, meanwhile, saving management time is a key concern. Quality of service is a bigger driver for manufacturers than for other sectors, while innovation and cybersecurity are standouts for financial services organizations. Educational institutions cite more motivation than others to access talent, while resilience is of heightened concern to retailers. Companies with revenue over $10 billion have more reasons to outsource, due to their scale and complexity, which is why they intend to do so more than others.

Cost is a top driver for sourcing to external service providers

Percent of respondents naming each reason for sourcing more to ESPs

Reasons	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
Lower cost of service	51%	53%	40%	50%	61%	52%	52%
Increase profitability of processes	48%	44%	33%	40%	56%	58%	54%
Reduce management time/overhead	45%	51%	47%	41%	50%	40%	42%
Greater scale	42%	39%	44%	43%	43%	45%	39%
More in-depth capabilities	37%	39%	31%	40%	41%	38%	35%
Higher quality of service	34%	27%	36%	34%	27%	43%	38%
More innovative	28%	15%	41%	26%	19%	35%	28%
Ability to adapt quickly to change	23%	12%	27%	15%	26%	29%	27%
Better cybersecurity/data privacy	22%	35%	35%	21%	19%	10%	18%
Stronger ties with tech providers	22%	15%	11%	27%	21%	34%	25%
Deeper pools of talent	20%	28%	12%	23%	24%	21%	14%
Pricing power with tech providers	17%	9%	11%	17%	12%	32%	20%
Higher use of latest automation tools	16%	16%	15%	17%	12%	19%	17%
Better business continuity	13%	6%	12%	7%	11%	17%	22%

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 9

8 Businesses have many reasons for deciding against using an ESP, including the inability to innovate and adapt, manage risk and meet expectations.

About four out of 10 businesses prefer not to outsource because ESPs are not innovative enough, and another 28% say these providers are less able to adapt to market changes. About three out of 10 believe ESPs are too risky, with intellectual property and data protection being particular concerns. Other reasons relate to poor-quality staff unable to meet service level agreements and business expectations.

Reasons differ by industry (see Figure 10, next page). Financial services organizations are most troubled by the inability of ESPs to innovate, while life sciences businesses worry more about lower quality staff. Manufacturers cite the largest number of negatives, with an ESP's inability to adapt, higher risk and inadequate IP protection at the top of their list. Staff quality is the number one issue for education organizations.

Arguments for both captives and ESPs

Percent of respondents naming each reason for preferring not to source to ESPs.

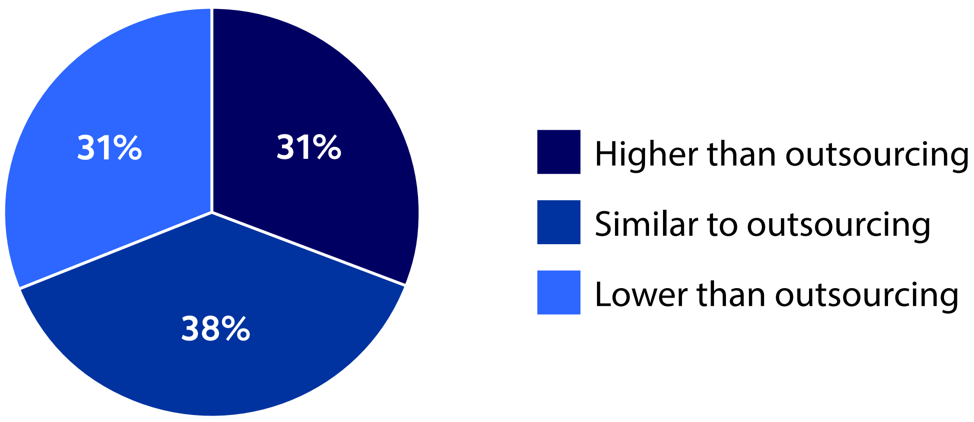
Reasons	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
Are less innovative	41%	12%	64%	44%	50%	24%	50%
Using an ESP is too risky	31%	31%	18%	39%	33%	45%	19%
Have lower quality staff	31%	38%	23%	28%	50%	31%	27%
Adapt less readily to change	28%	19%	27%	22%	25%	48%	15%
Concerns over IP protection	25%	25%	14%	17%	33%	41%	19%
Often fail to meet SLAs	23%	25%	18%	11%	25%	31%	23%
Using ESP makes us hostage to ESP	20%	19%	23%	28%	8%	21%	19%
Have not met expectations in past	18%	-	14%	22%	25%	24%	19%
Poorer data security/privacy	17%	19%	5%	-	8%	31%	27%
Care more about their own margins	15%	12%	14%	17%	17%	17%	15%
Less resilient than we are	15%	19%	18%	17%	8%	7%	19%
Prefer capital to operating costs	14%	19%	18%	6%	-	17%	15%

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 10

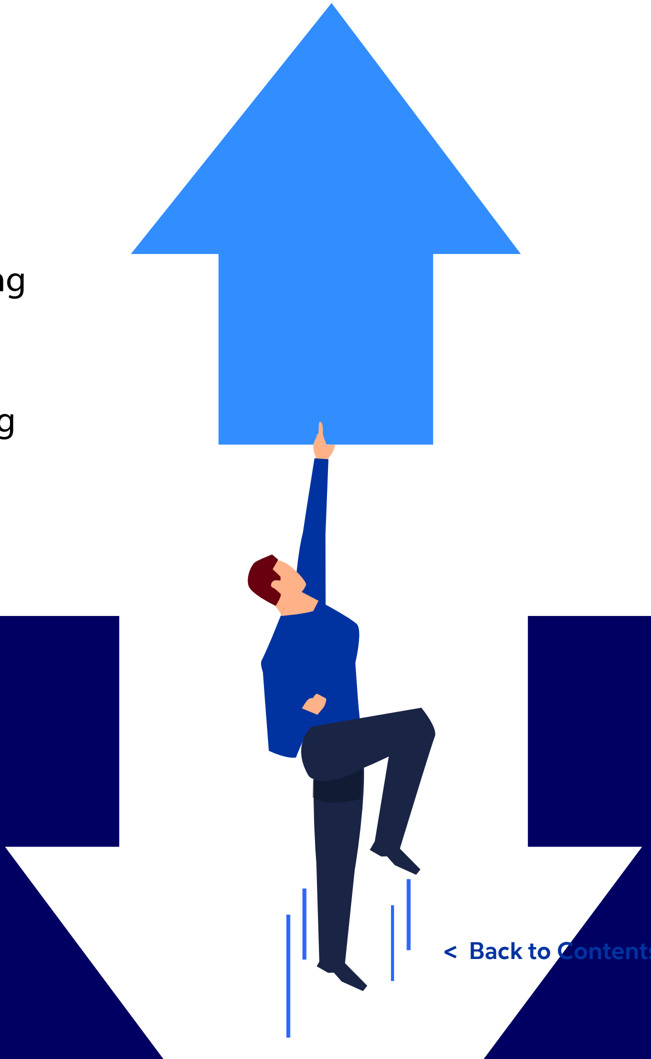
9 The jury is out on whether the ROI on captives is better or worse than on ESPs. Captives provide higher ROI for very large enterprises and lower ROI for smaller ones.

The largest percent of businesses (38%) believe the ROI on captives and ESPs is similar, but equal numbers (31%) feel the ROI is either higher or lower (see Figure 11). While perceptions differ little by industry, there are variations by size. Most organizations under $1 billion believe the ROI on captives is lower than that on outsourcing, whereas companies over $10 billion think the reverse is true. This reflects the economies of scale that tip in favor of larger enterprises, which can offset the higher costs of a captive by channeling a greater amount of business through them.

ROI: Captive vs. ESP



Response base: 1,500
Source: Cognizant Center for the Future of Work
Figure 11



10 About four in 10 companies would sell their captives to an ESP. A similar percentage would not.

Companies are of two minds about selling their captives to ESPs. While 39% say they would sell their captives, an equal percentage say they would not (see Figure 12). The remainder are on the fence. The percentage of those willing to sell is higher for life sciences and retail organizations, as well as for smaller businesses (43%). Companies in Europe and South Africa are more prone to want to sell.

Captives for sale

Percent of respondents interested in selling captive to ESP, by country.

	Total	U.S.	Europe	Latin America	Australia	South Africa
Yes	**39%**	35%	**45%**	39%	25%	**48%**
No	**39%**	43%	33%	43%	46%	38%
Not sure	**21%**	21%	22%	19%	29%	14%

Percent of respondents interested in selling captive to ESP, by industry.

	Education	Financial services	Healthcare	Life sciences	Manufacturing	Retail
Yes	39%	34%	38%	**42%**	38%	**45%**
No	36%	44%	44%	35%	42%	35%
Not sure	25%	21%	18%	23%	19%	20%

Response base: 1,500
Percentages may not add to 100% due to rounding.
Source: Cognizant Center for the Future of Work
Figure 12

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11 The most common reason companies want to sell their captives is because they take up too much management time. Other cost-related issues are often cited.

Two-thirds of those wanting to sell their captives say they take up too much management time (see Figure 13). More than 40% cite the related issue of opportunity cost. A large minority of businesses would sell to reduce capital expenditures or generate capital. Generating capital is a prime reason for organizations in Australia and South Africa to want to sell captives – noted by more than 60%.

Manufacturers, not surprisingly, are particularly concerned about reducing overseas exposure to supply risks. They are also more interested than others in reducing opportunity costs and generating capital. Life sciences organizations are more likely than others to sell due to the difficulty of acquiring and retaining talent. Retailers more often would sell because captives are not innovative enough.

Enterprises with over $10 billion in revenue have different motives than smaller businesses do. The key reasons cited by these larger organizations include captives taking up too much management time, the need to reduce capital, difficulty of getting talent, opportunity costs and challenges with regulatory compliance. Less cited reasons by these businesses include generating capital or insufficient value for money.

Reasons for selling

Percent of respondents naming each reason for selling a captive.

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 13

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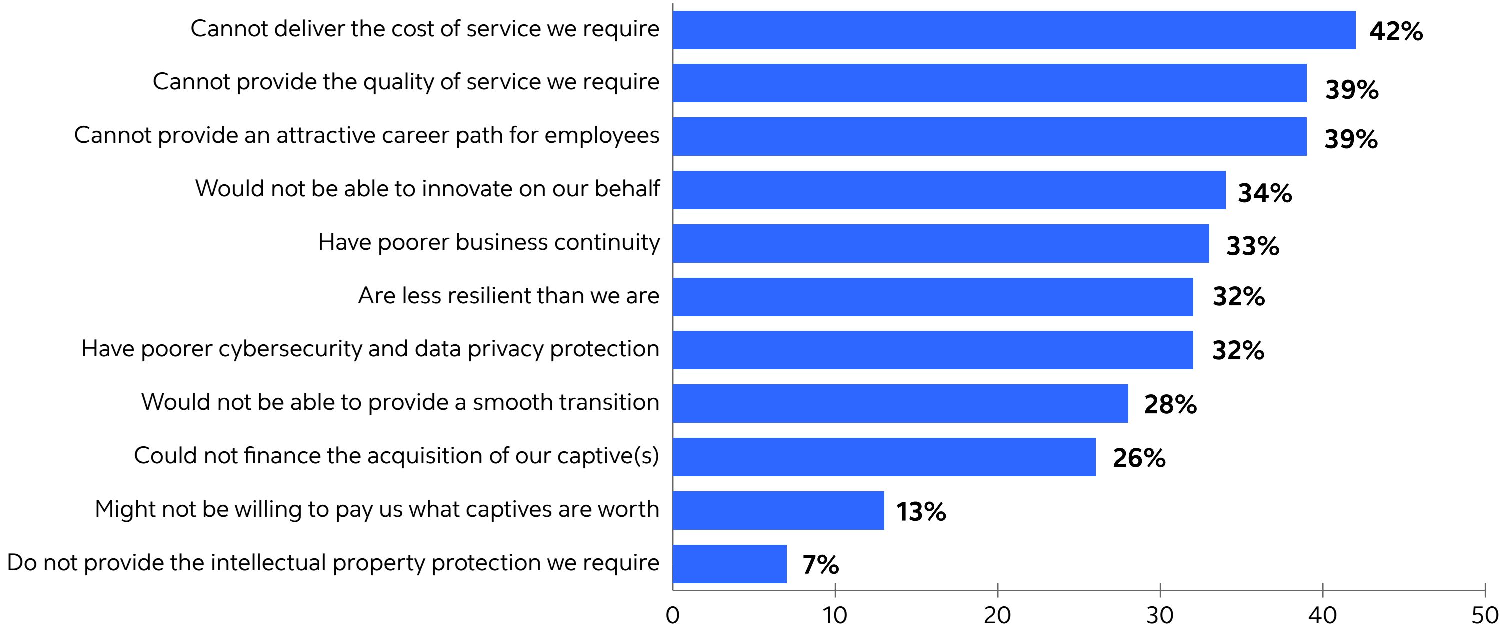
Reasons not to sell captives run the gamut – from cost and quality of service, to inability to innovate and provide a career path for employees.

Companies cite an array of reasons not to sell, with a few stand-outs. About four in 10 businesses say ESPs cannot deliver the cost or quality of service needed, nor can they provide an attractive career path for employees (see Figure 14). One-third mention poorer innovation, business continuity, resilience and cybersecurity. Roughly one-quarter will not sell because they say ESPs cannot provide a smooth transition or finance the acquisition.

There are some variations by industry. Quality of service is top of mind for 52% of financial services organizations, and manufacturers are more concerned about business continuity and cybersecurity risks.

Off the market

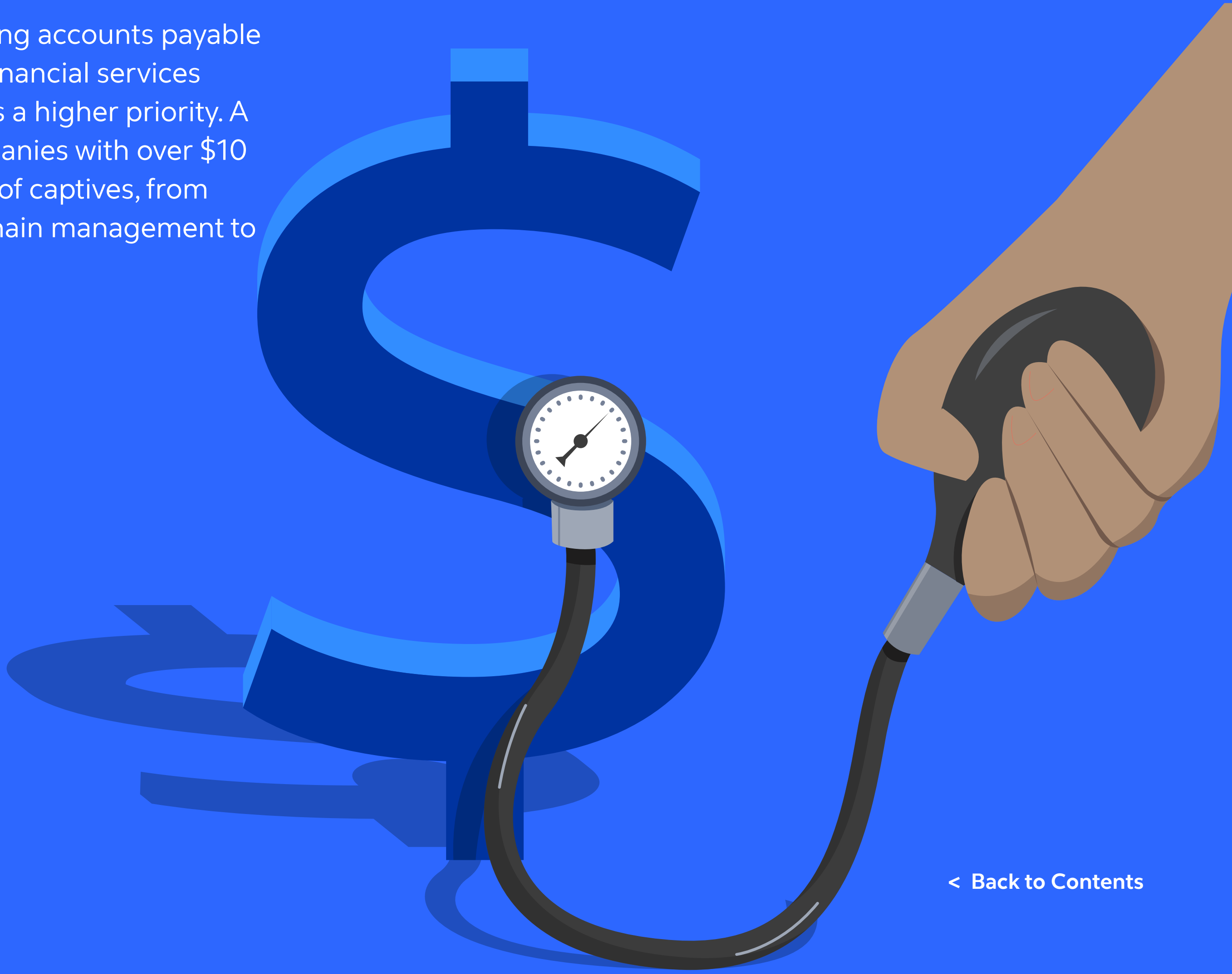
Percent of respondents naming each reason for not selling a captive.



Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 14

13 Of businesses interested in selling, almost half want to sell their procurement captives. This is especially true for healthcare and life sciences organizations, as well as very large enterprises.

Almost four out of 10 businesses, particularly life sciences and retail organizations, are looking to sell captives. Of those wanting to sell, almost half would sell their procurement captives, especially healthcare and life sciences organizations (see Figure 15, next page). A similar percentage would like to dispose of captives that handle supply chain management, with the percentages understandably higher for manufacturing, retail and life sciences companies. Sales captives are lower down the list (29%), except for retailers, which are more prone to want to sell (47%). Similarly, only a minority of businesses want to dispose of captives managing accounts payable and receivable, except for financial services organizations, for which it is a higher priority. A higher percentage of companies with over $10 billion want to sell a variety of captives, from procurement and supply chain management to HR and payroll.



Desire to sell varies with captive function

Percent of respondents naming the types of captives they would like to sell.

Reasons	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
Procurement	48%	22%	24%	61%	73%	50%	54%
Help desk	42%	66%	42%	49%	34%	39%	27%
Supply chain management	42%	8%	10%	35%	57%	65%	68%
Human resources	38%	35%	33%	43%	54%	26%	38%
Data center management	31%	28%	42%	28%	47%	20%	23%
Payroll	30%	28%	28%	35%	27%	30%	34%
Sales	29%	16%	9%	23%	40%	33%	47%
Compliance	27%	23%	28%	33%	45%	21%	12%
Accounts payable	21%	17%	55%	4%	6%	22%	27%
Accounts receivable	20%	26%	47%	8%	7%	20%	19%
IT development	15%	12%	17%	9%	10%	32%	11%
Legal processing	8%	12%	8%	2%	5%	14%	7%
Application development	8%	10%	9%	6%	8%	8%	5%
Application management	5%	8%	6%	8%	3%	-	4%
Media creative (i.e., advertising content development)	2%	1%	5%	-	2%	4%	3%
Security	2%	3%	3%	2%	1%	1%	1%

Response base: 1,500
Multiple responses permitted
Source: Cognizant Center for the Future of Work
Figure 15

14 Captives may be falling out of favor: More than half of companies expect to have less captive capacity by 2023.

Retailers are the most apt to reduce captive capacity, followed by manufacturing and life sciences organizations (see Figure 16). Larger enterprises are less prone to reduce capacity. In line with this sentiment, 48% of businesses expect to be more outsourced by 2023, while fewer expect to be less outsourced (23%) or see no change (29%). Among industries, retail, manufacturing and life sciences organizations are most likely to outsource more.

Captives vs. outsourcers

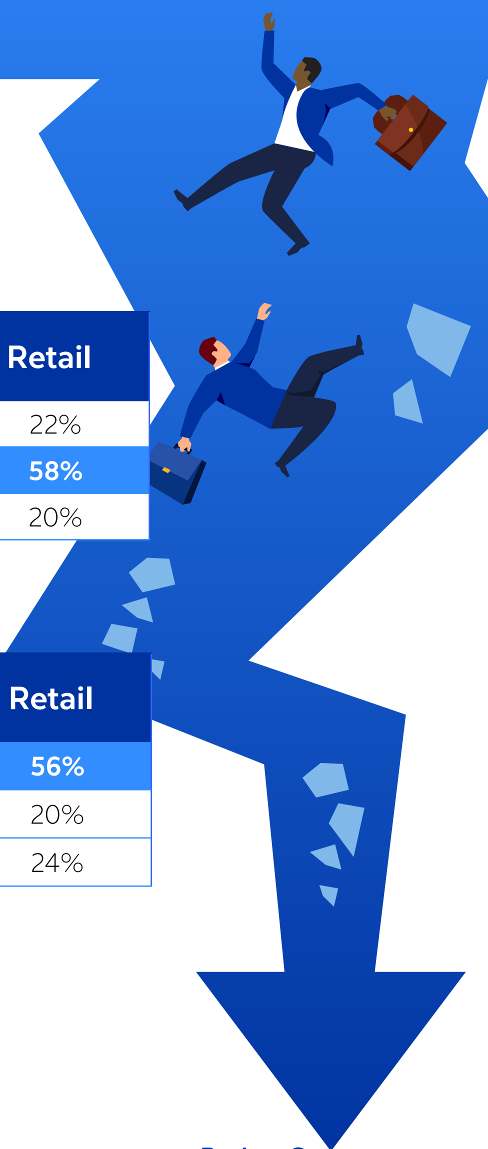
Percent of respondents saying they'll have more or less captive capacity by 2023.

	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
More	25%	20%	26%	27%	28%	24%	22%
Less	**52%**	51%	48%	48%	**53%**	**56%**	**58%**
No change	23%	28%	26%	25%	19%	20%	20%

Percent of respondents saying they'll be more or less outsourced by 2023.

	Total	Education	Financial	Healthcare	Life sciences	Mfg.	Retail
More	**48%**	46%	38%	46%	**50%**	**53%**	**56%**
Less	**23%**	25%	24%	26%	23%	19%	20%
No change	**29%**	28%	38%	28%	27%	28%	24%

Response base: 1,500
Percentages may not equal 100% due to rounding.
Source: Cognizant Center for the Future of Work
Figure 16



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15 Captives that draw on resources in developing countries may also be on the wane. Our research reflects a net decline in headcount.

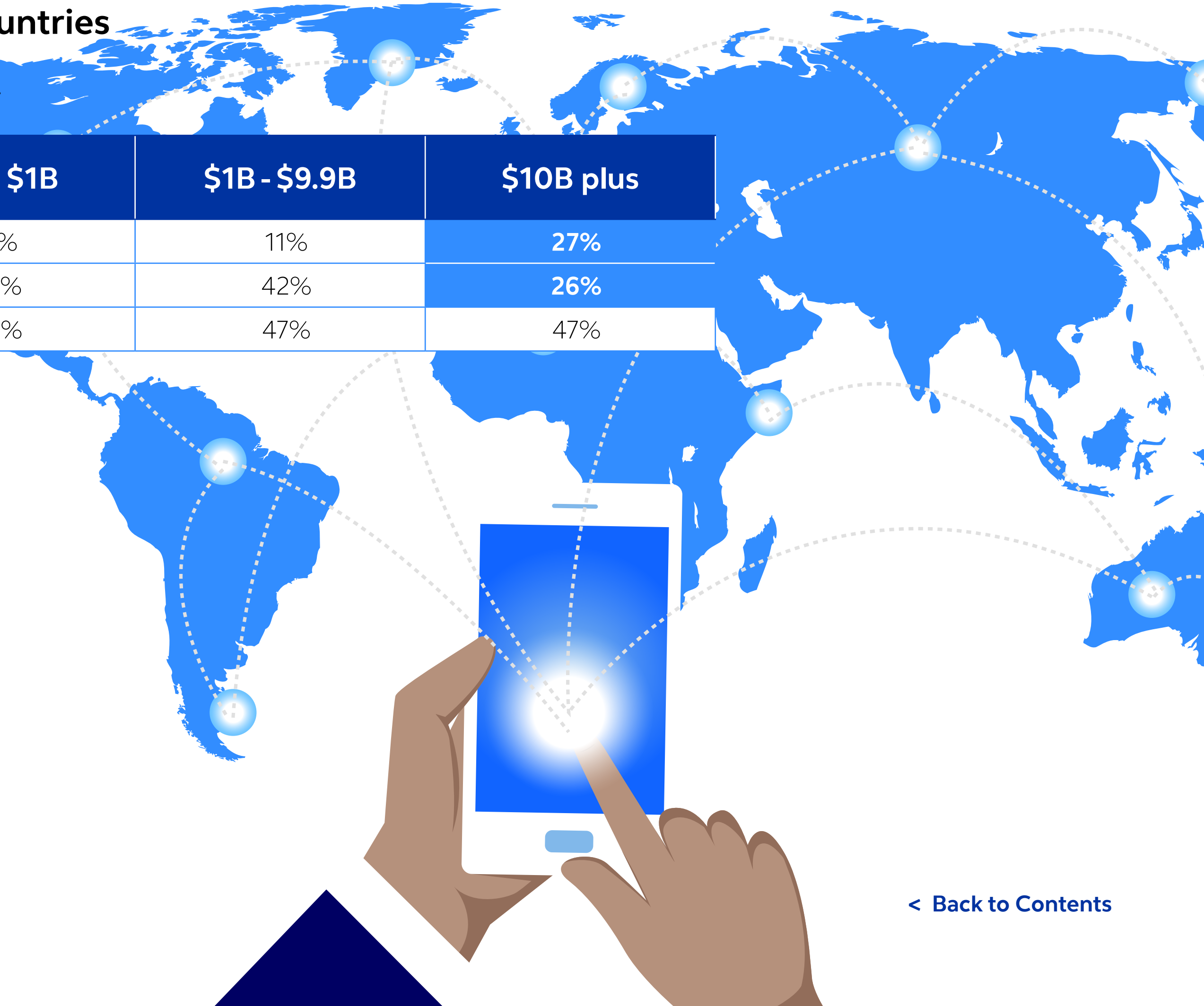
Sentiment toward captives in developing countries may be shifting. A mere 15% of businesses expect to have more headcount by 2023, while 40% expect to have less, and 45% anticipate no change (see Figure 17). However, this view is not shared by companies with revenue over $10 billion, of which a much higher percentage (27%) expect a rise in captive headcount in developing countries, and a much lower share (26%) expect headcount to decrease.

Diminishing interest in developing countries

Percent of respondents saying they'll have more or less captive headcount in developing countries in 2023.

	Total	Up to $1B	$1B - $9.9B	$10B plus
More	15%	11%	11%	**27%**
Less	40%	49%	42%	**26%**
No change	45%	40%	47%	47%

Response base: 1,500
Percentages may not equal 100% due to rounding.
Source: Cognizant Center for the Future of Work
Figure 17



Methodology

To understand COVID-19's impact on the use of captives and outsourcing, we worked with ESI ThoughtLab to field a rigorous study of 1,500 large businesses across six key industries and 10 countries. Conducted in June and July of 2020, this study identified the benefits and drawbacks to captives and outsourcing and explored how companies are expecting to change their approaches.

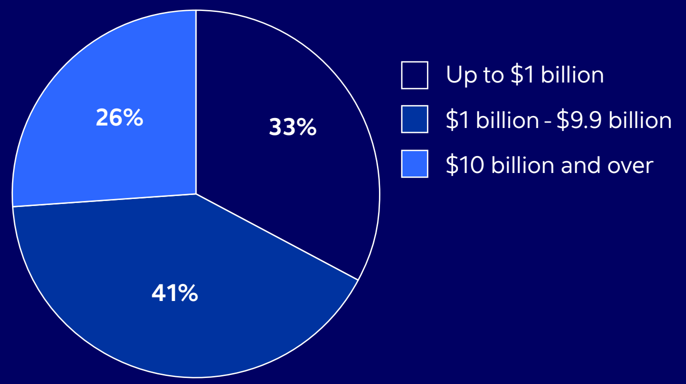
The sample included businesses ranging in size from $500 million in revenue to over $50 billion. We surveyed only executives with specific knowledge of their captive operations; these included a broad range of C-level executives (50%) and direct reports (50%). Most companies surveyed have more than one captive; 44% have three or more (81% in the case of companies with revenue over $10 billion). Manufacturers, retailers and U.S. companies typically employ the largest number of captives.

The following is a breakdown of the 1,500 survey respondents:

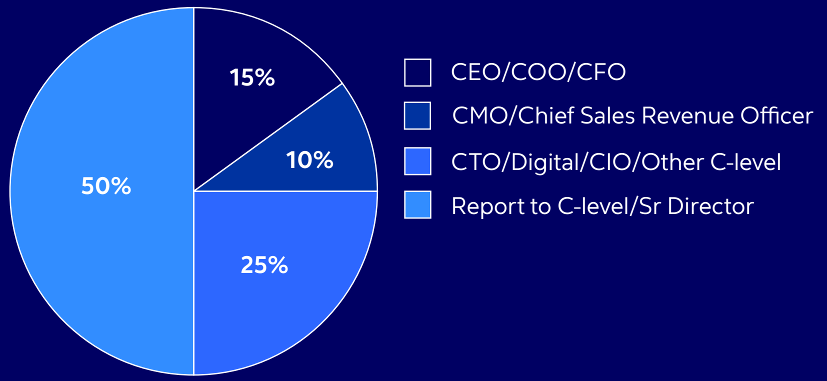
Respondents by country

U.S.	500
UK	125
France	125
Germany	125
Italy	125
Argentina	100
Mexico	101
Brazil	101
Australia	100
South Africa	98
Total	1,500

Percent of respondents by revenue



Percent of respondents by title



About the author

Ben Pring

Vice President, Head of Thought Leadership and
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Ben Pring is the Head of Thought Leadership at Cognizant, and co-founded and leads Cognizant's Center for the Future of Work. He is a co-author of the best-selling and award-winning books *What To Do When Machines Do Everything* (2017) and *Code Halos; How the Digital Lives of People, Things, and Organizations are Changing the Rules of Business* (2014).

Ben sits on the advisory board of the Labor and Work Life program at Harvard Law School. In 2018, he was a Bilderberg Meeting participant.

Ben joined Cognizant in 2011 from Gartner, where he spent 15 years researching and advising on areas such as cloud computing and global sourcing. Prior to Gartner, Ben worked for a number of consulting companies, including Coopers and Lybrand. In 2007, Ben won Gartner's prestigious annual Thought Leader Award.

Ben's expertise in helping clients see around corners, think the unthinkable and calculate the compound annual growth rate of unintended consequences has made him an internationally recognized authority on leading-edge technology and its intersection with business and society. His work has been featured in *The Wall Street Journal, Financial Times, The London Times, Forbes, Fortune, MIT Technology Review, The Daily Telegraph, Quartz, Inc., Axios, The Australian* and *The Economic Times*. Based in Boston since 2000, Ben graduated with a degree in philosophy from Manchester University in the UK, where he grew up. Ben can be reached at Benjamin.Pring@cognizant.com LinkedIn: linkedin.com/in/benpring/
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About Cognizant Center for the Future of Work

Cognizant's Center for the Future of Work™ is chartered to examine how work is changing, and will change, in response to the emergence of new technologies, new business practices and new workers. The Center provides original research and analysis of work trends and dynamics, and collaborates with a wide range of business, technology and academic thinkers about what the future of work will look like as technology changes so many aspects of our working lives. For more information, visit Cognizant.com/futureofwork, or contact Ben Pring, Cognizant VP and Director of the Center for the Future of Work, at Benjamin.Pring@cognizant.com.

About Cognizant

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 194 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.

About ESI ThoughtLab

ESI ThoughtLab is an innovative thought leadership firm that creates fresh thinking and actionable insights through rigorous research and evidence-based analysis. It specializes in using the latest quantitative and qualitative tools to examine the impact of technology on companies, cities, industries, and business performance. ESI ThoughtLab is the thought leadership arm of Econsult Solutions, a leading economic consultancy.

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