

**ATKearney**

# **Digital Resonance: The New Factor Impacting Location Attractiveness**

**The 2019 A.T. Kearney Global Services Location Index**

Automation and cybersecurity are increasingly becoming key factors in outsourcing decisions.



*A.T. Kearney*

In recent years, the information technology outsourcing (ITO) and business process outsourcing (BPO) industry has faced significant disruption from digital transformation, and the strongest impact is from two adjacent forces—automation on the one hand and heightened cybersecurity concerns on the other. We forecasted the impact of automation in the 2017 A.T. Kearney Global Services Location Index (GSLI) report, *The Widening Impact of Automation*. Our report pointed to anonymous data centers hosting cloud-based automation replacing human labor in ITO and BPO, and transforming business models by challenging traditional employment patterns.

In the two years since the 2017 report was published, this shift has begun. We have observed that low-cost countries are losing jobs due to increased automation in the sector and that new, more highly skilled jobs are being created in certain countries to manage the demands from automation. Countries are seeing their labor forces shifting rapidly and there is significant attention toward fast-growing automation start-ups that are driving this disruption.

As heightened automation disrupts labor patterns globally, it brings with it an equally disruptive threat of cyberattacks from malicious agents that feed on the vulnerabilities created from increased reliance on outsourcing and digitization. Companies are outsourcing vital functions and sharing sensitive information with their service providers, but they do not have enough awareness and visibility to the very same vendors who have access to their client-sensitive data. Furthermore, the range of cybersecurity systems in place among third parties, and the maturity of the host country's preparedness, response, and legislation also play a role in ensuring that data is protected.

As automation has increased the exposure of companies to these cyber threats, a greater understanding of the factors that influence this vulnerability is necessary. The GSLI has informed companies' strategic decisions about offshore operations locations for the past 15 years. The Index comprehensively surveys the outsourcing landscape, identifying the countries with the strongest underlying fundamentals to potentially deliver ITO, BPO, and voice services. Historically, this measure has been based on metrics within three major categories: financial attractiveness, people skills and availability, and business environment. To address the rising impact of automation and cybersecurity, this year we have added a fourth category—digital resonance—which is defined in greater detail through the course of this paper.

## **Automation and Digital Resonance**

Examples of the shift in needs from a future labor force as a result of the disruptive impact of automation can now be seen throughout the world. Telecommunications company Vodafone, for instance, has announced that it will be laying off 1,700 service center employees in Romania, India, and Egypt, affecting about 8 percent of that workforce as they implement new automation solutions. And in the Czech BPO segment, software robots are now doing the full-time work of an estimated 4,000 employees, representing 4 percent of the total BPO labor force. These lost jobs have been partially offset by the 1,200 new full-time Czech employees who work on programming and implementing automation systems. While the jobs lost tend to be simpler functions predominantly executed in low-cost countries, the new jobs building and maintaining the automation tools demand more familiarity with business requirements and a higher degree of creativity—and are predominantly located in higher-cost on- or near-shore countries, such as the Czech Republic.

This rapid development of new technologies disrupting the industry can also be seen in the attention—and significant amount of funding—given to automation start-ups by the venture capital sector. For instance, the Silicon Valley start-up Automation Anywhere, a pioneer for robotic process automation (RPA) that brings together cognitive automation and analytics, raised \$250 million in 2018 in one of the largest Series A financing rounds, with a valuation of \$1.8 billion. Similarly, the Romanian company UiPath, now domiciled in New York City, raised \$568 million in its Series D investment round. The company’s valuation at that time was \$7 billion, and its revenue has increased from \$8 million to more than \$200 million since April 2017.

It is clear, then, that digital capabilities must also now be integral parts of decisions about offshoring operations locations. As the industry has been disrupted by automation, our Index, too, must change in order to accommodate the increasing importance of digital considerations in these choices and the need for fewer employees who specialize in repetitive tasks and more employees with the creative capacity and business knowledge necessary to manage automation. In an effort to capture the impact of this rapid evolution in new automation technology, A.T. Kearney is adding a fourth major category to the 2019 GSLI Index: digital resonance. This new digital resonance category incorporates metrics in the following areas:

- Digital skills of the labor force
- Legal adaptability, meaning the extent to which the legal framework takes digital business models into account, including cybersecurity protections
- The amount of corporate activity, defined as the amount of capital invested in start-ups and the number of deals by VCs in 2018
- Digital outputs, including creative outputs, as well as knowledge and technology outputs

Figure 1 presents the new framework for the 2019 GSLI Index.

Figure 1  
**Digital resonance is a new category in this year’s edition of the GSLI**

**GSLI components and framework**

<b>Global Services Location Index</b>			
<b>Financial attractiveness (35%)</b>	<b>People skills and availability (25%)</b>	<b>Business environment (25%)</b>	<b>Digital resonance (15%)</b>
Compensation costs	ITO/BPO experience and skills	Country environment	Digital skills
Infrastructure costs	Labor force availability	Country infrastructure	Legal and cybersecurity
Tax and regulatory costs	Educational skills	Cultural adaptability	Corporate activity
	Language skills	Security of IP	Outputs

Notes: GSLI is Global Services Location Index. ITO is information technology outsourcing. BPO is business process outsourcing. IP is intellectual property. Source: A.T. Kearney analysis

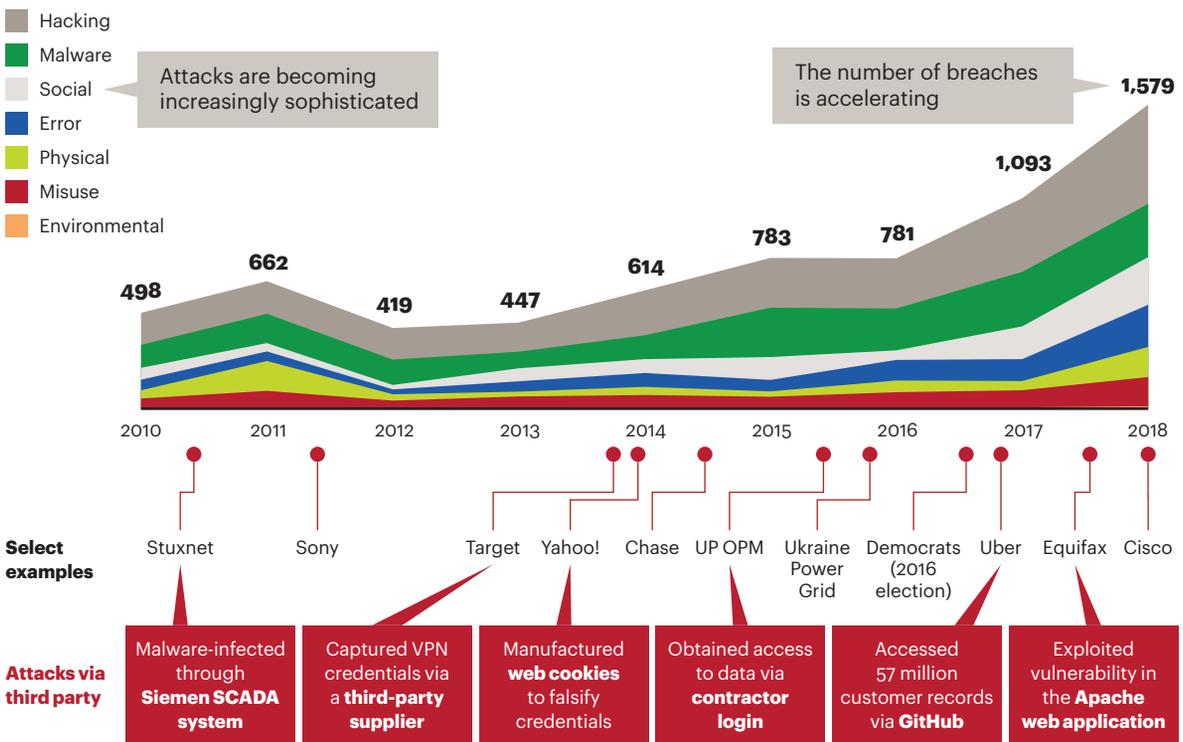
# Cybersecurity

The increasing incidence of cyberattacks and their catastrophic impact has taken cybersecurity right to the board agenda. A.T. Kearney's analysis indicates that the incidence of cyberattacks on organizations has been accelerating at approximately 40 percent over the past three years. Cyber incidents are no longer limited to traditional information technology (IT) systems; operations technology (OT) systems are equally vulnerable. In fact, cyberattacks on industrial control systems have risen by 116 percent since 2016. Figure 2 illustrates both the acceleration in the number of data breaches in the United States between 2010 and 2017 and the increase in the sophistication of these attacks. While earlier breaches were from individual hackers attacking superficial vulnerabilities, we are now seeing criminal groups seeking monetary gain from cyberattacks, financially motivated corporate espionage by disgruntled employees, hijacking of computers to mine cryptocurrency, and even politically motivated nation-state attacks.

The impact of these breaches has also been increasing and can reach catastrophic levels. An A.T. Kearney study of recent high-profile breaches reveals that approximately one in 10 breaches has resulted in customer churn of more than 20 percent. The breach at Target that compromised 110 million customer records in 2013, for example, cost the company \$162 million, and the cyberattack on Sony in 2011 compromised 77 million player accounts and cost \$171 million.

Figure 2  
**The incidence of cyberattacks on organizations is accelerating, with increasing vulnerabilities through third parties**

**Annual # of data breaches and select examples of attacks via third party**  
 (United States, 2010–2017)



Source: A.T. Kearney analysis

In addition to the cost of the breach itself, share prices typically fall after a breach is announced and the impact can be felt in the C-suite of impacted organizations. The 2017 Equifax breach that affected more than 147 million customers was particularly severe and resulted in a 24 percent decline in share price within about a month of becoming public. The estimated total cost to Equifax was \$439 million. The CEOs of both Equifax and Target left their companies after the breaches were announced.

## **Cybersecurity exposure from outsourcing services**

In the past, companies largely outsourced to physically remote, dedicated centers. Organizations had defined boundaries with clear access points that allowed them to build security perimeters that protected their assets. As automation has come to play a larger role, however, these arrangements have become more complex. We now see a combination of human labor and robots, with work being distributed across several locations—for example, the company's home office and the cloud.

While these new outsourcing arrangements are more efficient, more effective, and less costly, they also expose companies to significantly more cyber risk. The boundaries between organizations are increasingly blurred, and the traditional approach of “firewalling” just the perimeter is not sufficient to protect an organization's assets. This process should begin with the identification of the crucial assets a company must protect and a determination of the level of risk they are willing to accept. All organizations have certain data, information, and systems that are more valuable than others for various reasons—from maintaining safety, to protecting intellectual capital, to safeguarding customer information. A formal review of assets and designation of a company's most important assets as High Value Assets (HVAs) allow the company to determine acceptable levels of risk and to identify the security controls necessary to protect them. Companies must also consider the criticality of functions that will be performed by a service provider and the access to sensitive data the provider will have—either directly or indirectly.

Companies should also conduct regular risk assessments as part of performance reviews, and take extra care when offboarding vendors to ensure that all access is revoked. This approach not only reduces the areas that are vulnerable to attack, but also enables quicker response and recovery from cybersecurity incidents. It is important to note that these cyber controls should be implemented for all service providers that have access to sensitive data—not just tech providers. Controls should be based on a specific provider's level of access rather than the type of provider.

More than 50 percent of cyberbreaches in the past five years are estimated to be due to third-party attacks. This vulnerability is only magnified by the fact that companies often outsource central components of their businesses and that most companies have very little understanding of the number of vendors that have access to their sensitive data. A.T. Kearney estimates that less than one-fourth of companies are even aware of the full scope of the data sharing that occurs in these relationships. There is, however, quite a bit of variation in the level of cyber risk and this is based on the type of service(s) outsourced, location of the service provider, maturity of the service provider, and the cyber controls that are in place. As an example, threat from third parties providing labor services is not as high as that from third parties providing technology solutions, hosting, or manufacturing services. And while the risk level from labor outsourcing depends largely on the maturity of the outsourcing organization's security controls, the risk created by outsourcing other services depends on the maturity of

the security controls of all parties involved. As a result of the increased incidence of data breaches and the rise in the sophistication of these attacks through third parties, a comprehensive cyber risk assessment must become a crucial decision factor for companies as they evaluate third-party outsourcing services.

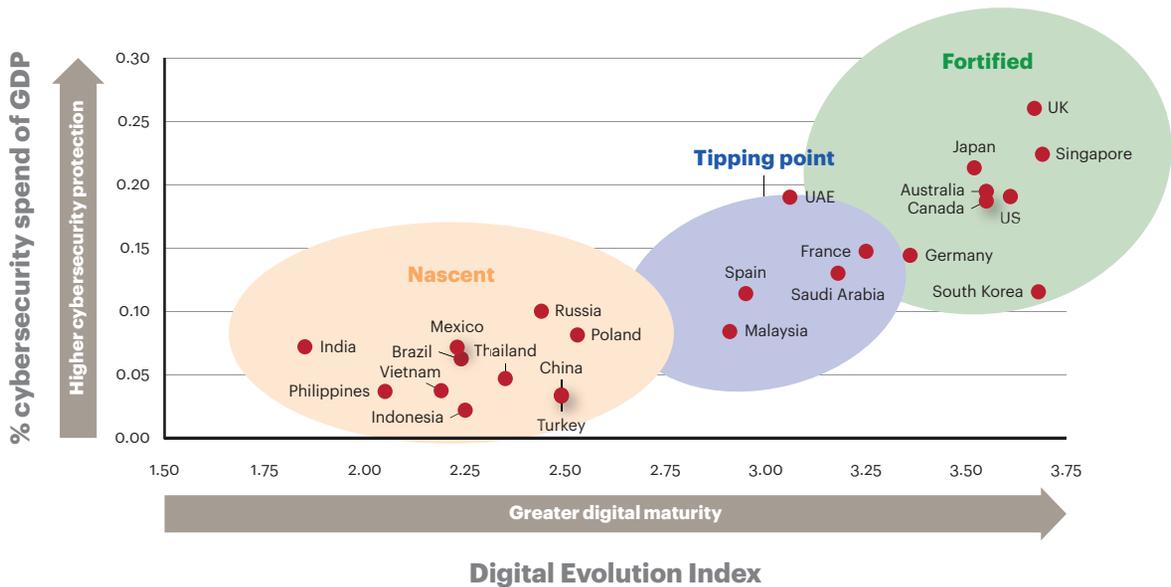
## Geographic implications

While cyberattacks are global in nature, there are differences in the preparedness of countries and their capacity to respond. In general, as the digital maturity and connectedness of countries increase, their investment in cybersecurity as a percent of GDP also rises. As figure 3 illustrates, the United Kingdom, United States, Germany, Japan, and Australia have reached both high levels of digital maturity and high levels of cybersecurity protection. In the United Kingdom, a national cybersecurity strategy mandates the creation of a Cybersecurity Office, a Cybersecurity Operation, and the nomination of a “Cybersecurity Czar.” In addition, the country’s Centre for Protection of National Infrastructure (CPNI) provides security advice to protect the Critical National Infrastructure. Similarly, in the United States, the Cybersecurity Office under the Department of Homeland Security governs national cybersecurity efforts. And work has begun on a national cyberwarfare policy, which would include launching hacking operations and deterring adversaries. While the fragmented regulation throughout the European Union created initial challenges, the Directive on Security of Network and Information Systems (NIS Directive) came into force in August 2016, and member states were given 21 months to adopt the directive.

Figure 3

**As countries get more digitally connected there is a need to commit to sustained investment in cybersecurity**

### Case for cybersecurity investment



Note: The Digital Evolution Index is calculated from 108 digitization indicators across supply conditions, demand conditions, institutional environment, innovation, and change, including smartphone adoption; digital payment adoption; R&D spend; communication, financial, and logistics infrastructure; transparency and rule of law; business environment; and financing options.

Sources: World Bank, Tufts University’ Digital Planet 2017 report, analyst reports; A.T. Kearney analysis

Given this variation in the levels of cybersecurity among countries that are potential destinations for offshore operations, companies seeking to outsource must pay attention to the cyber risk profile of countries in which their service providers are located, in addition to assessing the risk profile of the providers themselves. The new digital resonance category of the GSLI, therefore, includes a metric within the legal adaptability component that encompasses cybersecurity preparedness, response, awareness, and legislation. Combining industry indices that rank countries based on their legal, technical, organizational, capacity building, and cooperation maturity, this benchmark can inform the crucial service provider cybersecurity threat assessment that all companies must now be conducting at a high level.

Companies must fortify their own controls, as most are not fully aware of the information that is exposed to third parties as a result of their outsourcing.

## 2019 Location Assessment

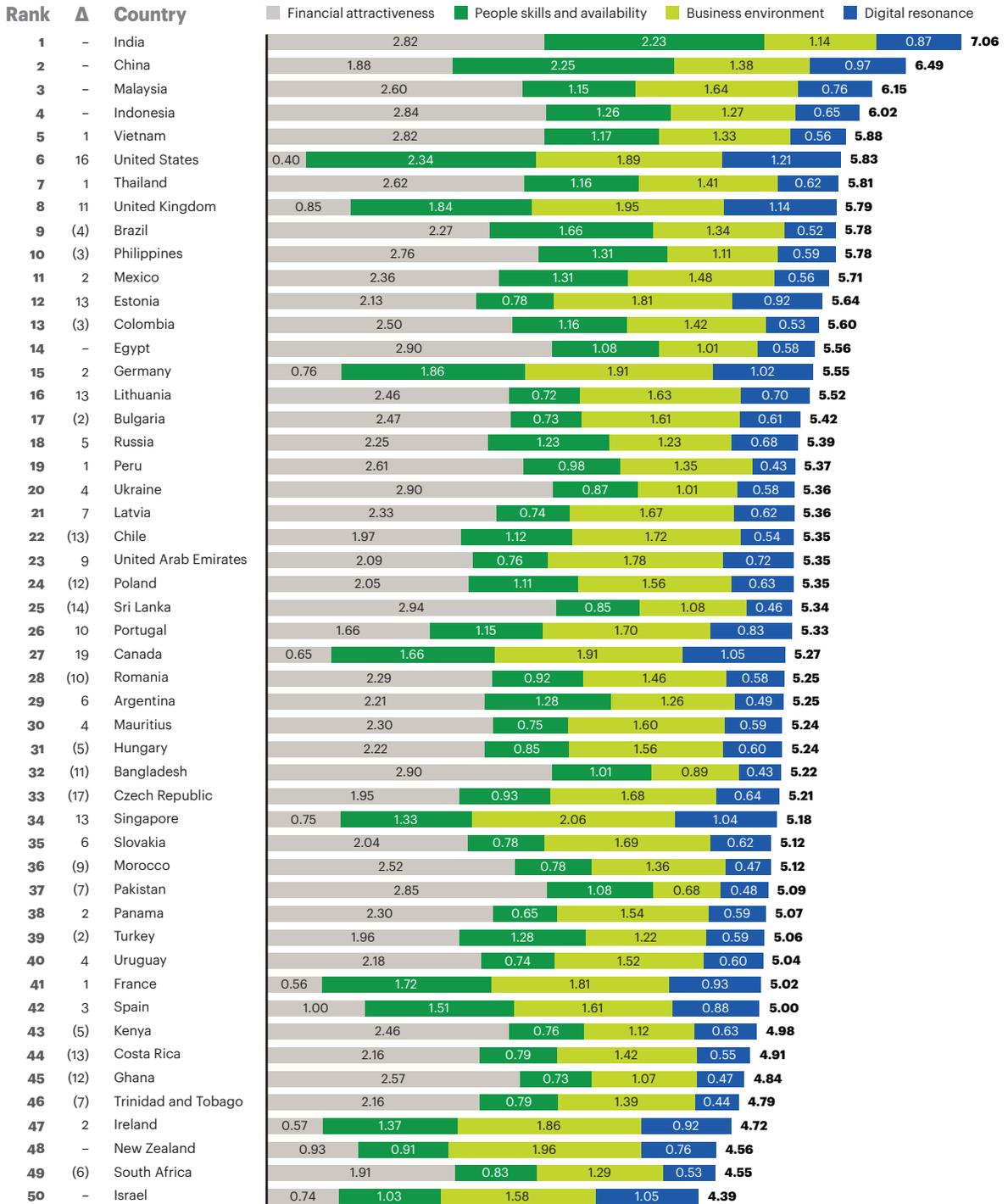
As the number of locations suitable for offshoring continues to proliferate, companies seeking to benefit from these opportunities must take care to design the optimal global footprint. Countries must also anticipate increasingly fierce competition for offshore jobs and dollars. To shed light on companies' complex and shifting choices regarding locations for offshore operations, we present the 2019 findings of the GSLI. This Index tracks the contours of the offshoring landscape in 50 countries across four major categories: financial attractiveness, people skills and availability, business environment, and the new digital resonance category (see figure 1 on page 2). It assesses countries' capacity to deliver BPO and ITO services based on 44 different metrics (see Appendix: About the Study on page 14).

The 2019 GSLI overall country rankings indicate that, at a regional level, Asia continues to dominate the Index (see figure 4 on page 7). Asian economies represent six of the top seven spots, and India, China, and Malaysia hold the first three spots in the global services value chain again this year—despite the change in the Index methodology. In fact, while most locations have experienced movements in the rankings as competition has become more intense and as economies have developed, it is striking that the three countries at the top have held the same positions since we started measuring the attractiveness of locations for offshoring. The United States breaks into the top 10 countries for the first time this year, moving up from 22nd place in 2017, and the United Kingdom and Germany also perform well, ranking 8th and 15th, respectively, in this year's Index. Latin America remains a strong contender, with Brazil, Mexico, and Colombia taking 9th, 11th, and 13th place, respectively. Central Eastern European countries, however, have shifted in their Index performance. While less established locations such as the Baltic States, Ukraine, and Russia are pulling ahead, the more prominent Czech Republic, Poland, and Hungary show large declines in the ranking due, in part, to rising costs. Canada, the United States, Lithuania, Estonia, and Singapore recorded the largest upward shifts overall.

Figure 4

**The top three remain the same, while the United States, United Kingdom, and Germany perform well in the top 15**

**GSLI overall country rankings**



Notes: For France, Germany, UK, and US, Tier II locations are assessed. Numbers may not resolve due to rounding.

Source: A.T. Kearney GSLI 2019

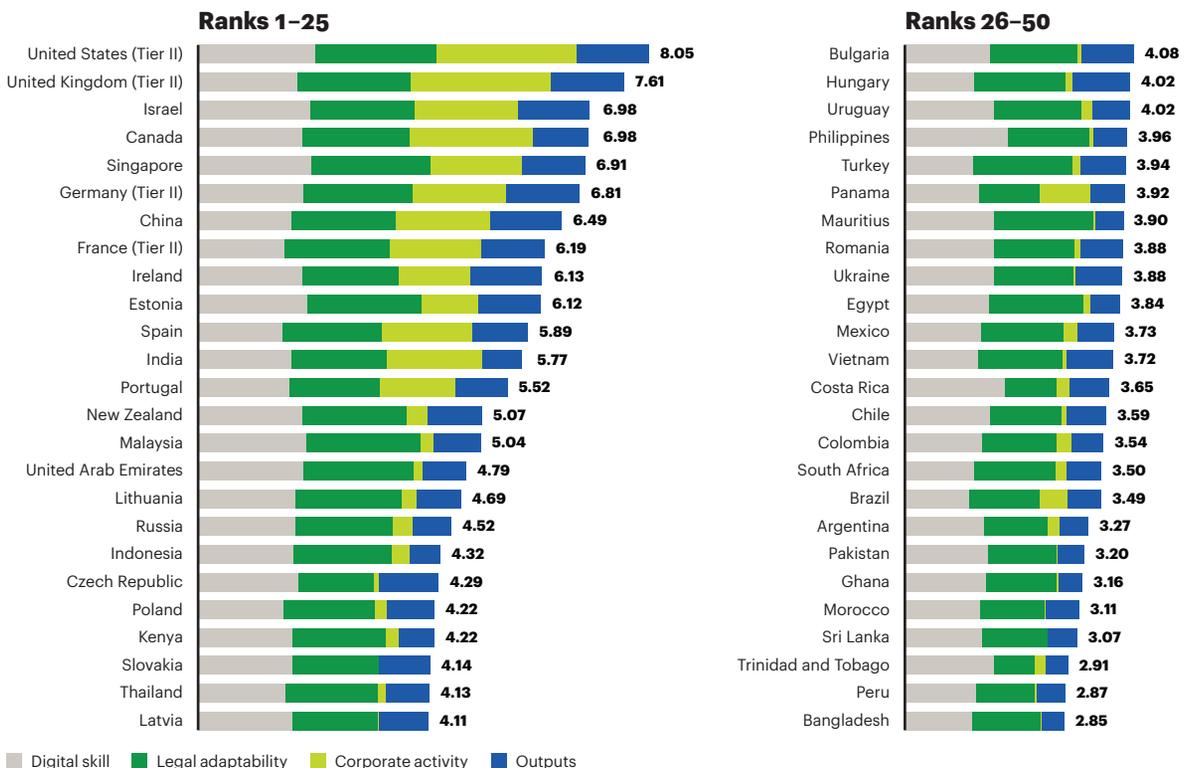
The addition of the digital resonance category ensures that the Index captures new information related to automation that is increasingly relevant in these decisions. Companies now need a labor force that is more creative, maintains solid digital skills, and has a greater understanding of business requirements.

Figure 5 presents the digital resonance index scores, as well as the contributions of each of the components for the 50 countries measured by the Index. Not surprisingly, digital resonance is led by the world’s most advanced economies. These advanced economies with higher-skilled labor forces are generally more costly for employers but the increasing emphasis of digital skills is starting to level the playing field as automation begins to make a dent in traditional cost arbitrage calculations. The highest-scoring digital resonance countries also performed well in the subcategory of corporate activity and outputs, suggesting that ongoing investment and activity is a good indicator of digital resonance. And these high-scoring digital resonance countries also generally did well in IT/BPO experience while they fared more poorly in labor force availability, pointing to the fact that it is smaller and more nimble countries with solid industry experience that will reap the highest rewards as the shift to digital takes hold.

Strong scores in digital resonance drove increases in the overall GSLI ranks for certain advanced economies—including large players such as the United Kingdom, Canada, the United States, and Germany. But in yet another example that small and nimble countries can thrive in this new environment, countries such as Estonia, Singapore, and Israel are also buoyed by the new methodology.

Figure 5  
**Digital resonance is led by the world’s most advanced economies**

**GSLI 2019—digital resonance**



Source: A.T. Kearney GSLI 2019

At the other end of the spectrum, this change in methodology had a substantial negative impact on countries such as Bangladesh, Sri Lanka, and Argentina. Countries that have been late entrants to the industry are at threat to be left behind as the sophistication increases.

While countries in North America and Western Europe were the highest performing in digital resonance, all Latin American countries ranked in the bottom half in this new category. Argentina is one example. Although it moved up in the rankings this year thanks to falling costs, its progress was held back by its poor digital resonance ranking. It is a warning sign for countries in the region that have successfully established strong industries and specialized niches in the global services value chains. A lack of focus on development of digital skills threatens to leave these countries behind.

There is a wide range of outcomes for this category in countries in the Asia Pacific, although these countries' digital resonance scores generally underperformed their overall scores. India maintained its top spot in this year's Index, but its 12th-place ranking in the new digital resonance category may serve as a call to action. The country will need to attend to this area to ensure that its labor force can sustain the change from lower-skilled work to more creative, high-skilled labor. India—and other low-cost countries—are more vulnerable to the impact of this change as they have a significant amount of their labor force in the low-skilled jobs that may be replaced by robots, and they do not yet have the creative workforce that will be needed in the near future.

## The Index, by Country

The Index has grown from covering 25 countries in 2004 to 50 countries in 2019, indicating just how global the industry has become. Summaries of the top 20 countries' movement in the Index as well as key events or developments in recent years are presented below. Please note that the Index focuses on lower-cost countries that are responsible for much of the outsourcing that currently occurs. While certain higher-cost countries such as the United States, the United Kingdom, France, and Germany are included in the Index as benchmarks for demand markets, other higher-cost countries such as South Korea and Japan are not included.

**India** (1) continues to lead the Index. As the undisputed industry leader, India offers a depth and breadth of English-speaking skilled labor that no other low-cost countries can match. In March 2018, India was hosting more than 1,140 global in-house captive centers, which allow almost half of the top 500 global companies to work in India. Just one sign of the immense amount of talent available is Barclays Global Service Centre, which already employs more than 16,000 people and has announced that it will establish a new facility for up to 8,800 more employees. Recent developments within this sector include Nasscom's new online platform for upskilling more than 2 million tech workers and educating 2 million others who could learn to do this work. In yet another sign of India's leadership role in the value chain, Indian IT companies and ITES companies have established more than 1,000 delivery centers in approximately 80 different countries, and about 75 percent of global digital talent resides in the country.

**China** (2) maintains its ranking and narrows its gap with India thanks to having the second-largest year-over-year increase in the business environment score of any country, as well as the seventh-highest digital resonance score in the index. Microsoft announced in April 2019 that the company would soon be opening the world's largest artificial intelligence and IoT laboratory in Shanghai. Microsoft also has global labs in the sector in Seattle and Munich. Shanghai Transcosmos Marketing Services Co. has opened a new contact center in Xi'an—its first center in west China and its ninth center in the country. This new center will take contact centers to a

new level of digitalization, utilizing new technologies such as cloud-based chatbot, RPA, AI, and auto-translation. At the same time, the escalating trade conflict with the United States that has implicated technology companies highlights an increase in risks for global investors in China.

**Malaysia** (3) maintains the 3rd-place ranking it has occupied since the start of the Index in 2004. Malaysia overcame the fifth-largest decline in its people skills and availability score with increases in its financial attractiveness and business environment scores and a strong digital resonance score. Malaysia represents nearly 1.7 percent of the total BPO market in the Asia Pacific, and BPO is anticipated to surpass IT outsourcing in Malaysia in the coming years. A new Globee BPO center in Kuala Lumpur will accommodate more than 2,000 employees doing customer service work in the Asia Pacific region. And AXA has opened a new shared services center in Kuala Lumpur as well, in order to serve as an IT hub and a center for technical subjects such as actuarial product pricing and valuation for AXA in Asia.

About 75 percent of global digital talent resides in India.

**Indonesia** (4) remains in 4th place in this year's Index, demonstrating a major improvement in political environment (a component of the business environment category) that helped offset minor declines in both financial attractiveness and people skills and availability. Like Thailand, the country continues to show very strong fundamentals, but industry has been held back from developing to its full potential. Indonesia's proximity to Australia makes BPO services especially attractive to companies there.

**Vietnam** (5) moves up one position in the 2019 GSLI. Vietnam had the third-largest increase in the business environment score, driven by a large score increase in the country infrastructure component. Companies such as Intel, IBM, Samsung Display, Nokia, and Microsoft continue to invest in Vietnam, showing a continued momentum for the industry. Japanese IT companies frequently use services in Vietnam for ITO and BPO. In fact, Vietnam currently has 20,000 employees working for Japanese companies in this capacity. Vietnam is developing a more highly skilled workforce, and the country is dedicated to higher education and to fostering English proficiency.

**The United States** (6) moves up 16 spots to the top 10 countries in the ranking this year, thanks to best-in-Index performance in the new digital resonance category. Automation is being rapidly implemented in onshore centers in the United States. A recent Softomotive survey found that 46 percent of medium-sized businesses in the US have adopted RPA. As lower-end jobs are eliminated, call centers in the United States are moving up the value chain by training employees to be "super agents" who can address multiple questions from a single customer or who can answer calls from several different businesses at a time. The United States' ITO industry, however, is threatened by changes in US immigration policies. As it becomes more difficult to get H-1B visas, IT services providers are increasingly locating in Canada or Mexico to reduce their dependency on American visas. IT company Hexaware, for example, has plans to use its center in Mexico for work with US clients. And Tech Mahindra has similarly announced plans to set up a center in Canada.

**Thailand** (7) moves up one position in this year's Index. This change was driven by improvements in its business environment and people skills and availability scores, which offset a slight decline in its financial attractiveness score.

**The United Kingdom** (8) moves up 11 positions in the Index, thanks largely to the second-best country performance in the new digital resonance category. Uncertainty regarding Brexit, however, has resulted in significant IT and BPO spending reductions in the country, as companies are holding off on contract decisions. UK businesses reportedly spent 60 percent less on IT and BPO in 2018 than in 2017. As a result, IT service providers in the UK are struggling. Research by Barclaycard suggests that there is also concern that Brexit would exacerbate existing technology talent shortages. Just over half of respondents to the Barclaycard survey said that they were not certain that they would be able to find the technical expertise they needed after Brexit.

**Brazil** (9) moves down the ranks four positions, largely due to poor performance on the new digital resonance driver. Concentrix is expanding its Brazil operations, adding 200 more employees to its existing delivery centers in São Paulo and launching a new delivery center there as well. Similarly, Tata Consultancy Services (TCS) has agreed to conduct IT trainings for nearly 200,000 Brazilians, and the company also plans to expand in the country. TCS is constructing its largest delivery center yet, which can accommodate more than 4,000 employees in the state of Paraná. After this expansion, TCS will be one of the largest employers in Brazil's services sector.

**The Philippines** (10), an industry leader, moves down three spots in the ranking. This decrease was due to struggles in the business environment score as well as a sub-average score in digital resonance. The Philippines has more than 1,000 BPO companies conducting call center and back office work in the country. As the labor in Metro Manila is becoming increasingly saturated, companies are moving to other markets, including Cebu, Davao, and Dumaguete. In August 2018, Amazon opened its first customer service center in the Philippines, immediately establishing 300 new jobs in Cebu City and anticipating adding up to 1,000 more by the end of the year. In addition, TaskUs, which already had six offices in the Philippines, has recently opened two additional offices in Bulacan and La Union, which have almost 1,000 full-time employees. As hundreds of thousands of Filipinos telecommute from their homes—many as call center agents—the Philippines has instituted a new law that institutionalizes telecommuting and ensures that these workers have the same rights and benefits as those who work in offices.

**Mexico** (11) moves up two spots from 13th place last year. Mexico benefited from the largest increase in the business environment score, with considerable improvements in both the country environment as well as the country infrastructure components. QA Source, an American software testing services provider, has opened a delivery center in Aguascalientes, highlighting the strength of Mexican Tier II cities. The Mexican offices allow in-house engineering departments in the US to work in the same time zone as their offshore counterparts.

**Estonia** (12) moves up 13 positions in this year's Index, in large part as a result of the addition of the digital resonance category. Estonia performed particularly well in the digital skills and legal adaptability components. The country has an established finance and IT services sector, and its proficiency in supply chain, human resources, and process automation continues to grow. Estonia has more than 80 captive centers, and its BPO and ITO shared services centers employ more than 8,000 people.

**Colombia** (13) moves down three positions in the Index this year. Colombia struggled due to a decline in its IT/BPO experience and skills, as well as a poor digital resonance score. Amazon plans to open its first customer service center in Colombia with 600 employees. The center will serve customers throughout the world in Spanish, English, and Portuguese. In addition, Accenture has

established a new technology center in Medellín which they expect will employ up to 500 people in the next year; over the next three years, it may expand to more than 1,000 employees. Employees will include software developers, data scientists, and artificial intelligence specialists.

**Egypt** (14) holds steady in this year's ranking. Mentor Graphics' largest R&D center outside the United States is in Egypt, and Valeo hosts its primary R&D center in the country. IBM has created six captive centers in Egypt, and Dell, Microsoft, Vodafone International Services, and Orange Business Services have centers there as well. Technology parks have increasingly been created outside Cairo, in cities such as Assiut, Alexandria, Sadat City, and Beni Suef. This expansion has benefited the ecosystem, as has the country's ongoing attention to cybersecurity. Egypt was ranked 14th in the ITU's Global Cybersecurity Index.

As companies develop intricate relationships with many third parties, often putting vital data in their hands, it is imperative for them to mitigate the increasingly sophisticated threat of cyberattacks.

**Germany** (15) moves up two positions in the GSLI due to an improvement in the people skills and availability category and a strong digital resonance score that offset poor year-over-year performance in the financial attractiveness category (particularly in the compensation costs component).

**Lithuania** (16) leaps 13 spots, one of the largest jumps in the 2019 GSLI, driven by improvements in the compensation costs and country environment components, as well as a good digital resonance score. In 2017, approximately 1,600 new jobs were created in Lithuania's global business services sector, representing a 12.5 percent increase in the number of employees. The sector overall grew by 17 percent, and its profile became more global as western European companies grew their presence. While English is the most common language spoken in these centers, 43 percent of all centers work in at least five foreign languages. IT is the primary field of operations in Lithuania's global business services sector, and it is shifting toward ICT.

**Bulgaria** (17) fell two positions in the GSLI, continuing its 2017 decline. This change is driven by decreases in the compensation costs and IT/BPO experience and skills components. There are signs of optimism, however. Drawn by Bulgaria's strategic location, solid infrastructure, and stable political and economic system, the World Bank recently announced plans to open an outsourced shared services center in Sofia, which will recruit 275 people for up to five years. In addition, Coca-Cola European Partners has opened a new finance office in Varna. This office will employ more than 90 new people, who will complement the approximately 700 employees already working on finance shared services in the company's office in Sofia.

**Russia** (18) moves up five positions in this year's Index. This performance was driven by strong increases in the country environment and country infrastructure components, which offset declines in its compensation costs and people skills and availability scores.

**Peru** (19) moves up another spot this year—despite having the second-lowest digital resonance score—because it had the largest increase in the country environment component. One of Peru’s strengths is its highly educated, multilingual population. Bilingual LS recently opened a second phone interpreting center in Lima, which will employ about 120 interpreters.

**Ukraine** (20) moves up four positions in this year’s Index. This improvement was driven by an increase in its infrastructure costs and business environment scores, which offset a sub-average digital resonance score and the fourth-largest decline in the people skills and availability category.

## Constant Change

The results of the 2019 A.T. Kearney GSLI reflect the continuing evolution of the ITO and BPO industry. Over the past 15 years, the Index has tracked changes in countries’ performance and offered companies vital information as they made important decisions. As this sector has expanded to reach new countries and as new technologies and trends have influenced the decisions companies make in this arena, the Index has changed with it.

In 2019, we responded to the need to incorporate digital capabilities in the Index and to alert companies to the threats posed by cyberattacks for service providers and their clients. As companies develop intricate relationships with many third parties, often putting vital data in their hands, it is imperative for them to mitigate this increasingly sophisticated threat. These changes to the structure of the Index have provided stronger tailwinds to countries such as Estonia, Singapore, and the United States, which have already established digital strengths, and they have pointed to the risk other countries face of falling behind if they do not develop further in this area. Even India, which continues to hold the top spot despite the change in methodology, shows room for improvement in digital resonance. The 2019 results, then, may be a wake-up call for India and other countries regarding the need to develop a creative yet safe environment to meet the challenges confronting the industry.

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The authors would like to thank Fazal Ahmad, David Siegel, and Arun Singh for their valuable contributions to this report.

# Appendix: About the Study

## Country Ranking Methodology

The 50 countries in the 2019 Global Services Location Index were selected based on corporate input, current remote services activity, and government initiatives to promote the sector. They were evaluated against 44 measurements across four major categories: financial attractiveness, people skills and availability, business environment, and digital resonance (see figure 1 on page 2).

The metrics used to evaluate location attractiveness were determined from responses to A.T. Kearney surveys, other industry questionnaires, and knowledge obtained in client engagements over the past five years. The compensation costs component of the financial attractiveness category is based on data from the Mercer Global Pay Summary. The relative weights of each metric are based on their importance to the location decision, again derived from client experience and industry surveys. Because cost advantage is typically the primary driver behind location decisions, financial factors constitute 35 percent of the total weight in the published Index. People skills and availability and business environment each constitute 25 percent of the total weight, and digital resonance—the new category to the Index this year—comprises 15 percent.

Note: Compensation costs are based on data from the Mercer Global Pay Summary.



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The signature of our namesake and founder, Andrew Thomas Kearney, on the cover of this document represents our pledge to live the values he instilled in our firm and uphold his commitment to ensuring “essential rightness” in all that we do.

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